Historic, archived document

Do not assume content reflects current
scientific knowledge, policies, or practices.

# WHOLESALE FOOD DISTRIBUTION FACILITIES for MONTGOMERY, ALA.

Marketing Research Report No. 745

Agricultural Research Service
U.S. DEPARTMENT OF AGRICULTURE
*and*
The Alabama State Department of Agriculture and Industries
*in cooperation with*
Auburn University Extension Service

## ACKNOWLEDGMENTS

The authors are grateful to the various wholesale food firms in the Montgomery area for supplying necessary background data and to the Louisville and Nashville Railroad, the Atlantic Coast Line Railroad, the Western Railway of Alabama, and the Seaboard Air Line Railroad for their assistance in gathering information on available sites. City and State planning officials assisted whenever their services were required.

The following rendered valuable assistance in the gathering of data and the preparation of this report: The Honorable Earl D. James, Mayor of Montgomery; Jack M. Kilgrow, Office of the Mayor; Arthur L. Dees, Assistant Commissioner of Agriculture for Alabama; John A. Curry, Alabama State Department of Agriculture and Industries; Jack Knight, Office of City Planning, Montgomery; Alabama State Planning and Industries Development Board; and Urban Renewal Consultants, Inc.

M. R. Glasscock, Auburn University Extension Service, directed the farmers' market feasibility study included in this report. George W. Wright of the Federal-State Inspection Service assisted in the collection of basic data showing volume, flow, and handling costs. Photographs were furnished by Al Holland of the Alabama State Department of Agriculture and Industries.

This study was conducted under the general supervision of William C. Crow, Director, Transportation and Facilities Research Division, Agricultural Research Service. A. B. Lowstuter prepared and designed the architectural features of the facilities.

# CONTENTS


| | Page |
|---|---|
| Summary | iv |
| Background of the study | 1 |
| Importance of agriculture and food marketing in Montgomery | 1 |
| The present marketing system | 2 |
| Number of dealers and volume of food products handled | 2 |
| Wholesale food facilities | 3 |
| Fresh fruits and vegetables | 3 |
| Meat and related products | 3 |
| Groceries | 5 |
| Allied foods | 6 |
| Source of supplies | 6 |
| Distribution of supplies | 7 |
| Selected costs incurred by wholesalers | 8 |
| Handling and interdealer transfer costs | 8 |
| Spoilage, deterioration, breakage, and shrinkage | 8 |
| Rents | 8 |
| Summary of selected costs | 9 |
| Nonmeasurable costs | 9 |
| Need for changes in facilities | 9 |
| How the market can be improved | 10 |
| Kind and amount of facilities needed | 10 |
| Fresh fruit and vegetable buildings | 10 |
| The farmers' market area | 12 |
| Meat and related products buildings | 12 |
| Grocery buildings | 12 |
| Allied food buildings | 13 |
| Public refrigerated warehouse | 13 |
| Rail connections to buildings | 13 |
| Streets and parking areas | 13 |
| Restaurant | 14 |
| Fencing | 14 |
| Acreage required and arrangement of new facilities | 14 |
| How the market can be improved—Continued | |
| Selecting a site | 15 |
| The Bowman site | 15 |
| Britton-Moore site | 15 |
| The Catoma Industrial Park site | 15 |
| The Haardt site | 15 |
| H. & R. Point site | 15 |
| Other sites considered | 18 |
| Estimated investment in land and facilities | 18 |
| Land | 18 |
| Facilities | 18 |
| Ownership and management of new facilities | 19 |
| Private corporation | 19 |
| Public benefit corporation | 20 |
| Direct public ownership | 20 |
| Farmer cooperatives | 21 |
| Combinations | 21 |
| Methods of financing | 21 |
| Sources of capital | 21 |
| Revenue required and source of revenue | 22 |
| Benefits and savings from improved facilities | 24 |
| Measurable cost reductions | 24 |
| Nonmeasurable benefits | 25 |
| Summary of benefits and savings | 26 |
| Need for a farmers' market in Montgomery | 27 |
| Fruit and vegetable crops produced in the Montgomery area | 27 |
| Chilton County | 28 |
| Autauga County | 28 |
| Elmore County | 28 |
| Macon County | 29 |
| Montgomery County | 29 |
| Other counties | 29 |
| Types of markets in the Montgomery area | 29 |
| Grower interest in sales space in a proposed farmers' market in Montgomery | 29 |
| Summary and conclusions | 30 |
| Appendix | 31 |




Washington, D.C. Issued June 1966

For sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402—Price 25 cents

# SUMMARY

Nineteen wholesale food firms in Montgomery could save from $44,000 to $86,000 a year in the facilities proposed in this study. The $44,000 is based on construction of the facilities with private capital and the $86,000 on financing under the Wallace or Cater acts.

The purpose of this report is to assist in planning and providing wholesale food facilities to replace existing unsuitable, outdated, or inefficient buildings that may be displaced by long-range plans for civic improvement or by new highway construction. This report presents guides for constructing new, efficient wholesale food distribution facilities.

The wholesale food business in Montgomery is handled by 41 independent wholesalers and 3 food chain organizations. The total volume of direct receipts handled by all firms was 479,000 tons in 1964. Of this total 70 percent arrived by truck and the remainder by rail. These firms handle an estimated $180 million worth of food products annually. The firms included in the study distributed about 89 percent of their total volume within Alabama.

Among the major inadequacies of the present market are inefficient and outmoded buildings and a lack of rail connections, platforms, parking, and expansion areas. These and other factors have led to high costs of operation. Since many of the food wholesalers have already provided themselves with good facilities, plans were developed for only a part of the firms now operating in Montgomery.

In plans developed for new facilities, there are two multiple-occupancy buildings, one for fruit and vegetable operations and the other for allied food firms and grocery dealers. Total square footage, including restaurant and mezzanine space, is 71,875 square feet. Seven single-occupancy buildings would contain 130,000 square feet. Three of these buildings are proposed for meat and related products firms, one for a grocery firm, and three for allied food firms. A farmers' market with 49 covered stalls is planned. Railroad tracks behind the buildings would accommodate 34 rail cars.

A paved street not less than 200 feet wide is provided between the multiple-occupancy buildings. Provision is also made for adequate parking and expansion areas to permit additional facilities to be built in the future as needed. To meet the requirements just described and to provide space for firms who may locate in Montgomery at some future date, at least 50 acres of land would be required.

Ten possible sites are presented in the report. The total cost of land is estimated at $162,000. The entire project—buildings, other facilities, associated costs, and land—would cost approximately $2.7 million.

Under private financing rent for the new facilities would be about $186,000 more than for the old facilities. It would be possible to reduce the cost of amortization and other operating costs that affect rents if the project was financed through the Wallace or Cater acts.

The estimated savings would accrue principally from cost reductions with more efficient handling operations. Additional benefits would accrue to workers, dealers, buyers, and consumers. Local Alabama producers and producers from surrounding areas would have an organized market for their produce, and consumers would have better quality merchandise. In addition, the local governments could more easily enforce fire, health, and sanitary regulations.

# WHOLESALE FOOD DISTRIBUTION FACILITES FOR MONTGOMERY, ALA.

By Richard K. Overheim and Patrick P. Boles, *Transportation and Facilities Research Division, Agricultural Research Service, and* M. R. Glasscock, *Auburn Extension Service, Auburn University*

## BACKGROUND OF THE STUDY

This study was undertaken in the spring of 1965 at the request of the city officials of Montgomery. It was conducted by the Agricultural Research Service of the U.S. Department of Agriculture and the Alabama State Department of Agriculture and Industries in cooperation with Auburn University. The report outlines plans for new and improved wholesale food handling facilities to replace existing unsuitable, outdated, or inefficient buildings that may be displaced by long-range plans for civic improvement.

In Montgomery, more than 30 percent of the food volume of independent wholesalers is distributed from locations within the central business district, an area for which preliminary planning for urban renewal is underway.

The study had the following objectives:

- To analyze the present wholesale food marketing facilities in Montgomery.
- To estimate the major costs of handling food products, under present conditions, by these wholesalers.
- To determine facilities and possible sites needed for efficient wholesale marketing of these products.
- To estimate the cost of constructing new facilities.
- To estimate potential savings or benefits that may accrue from any suggested improvements.

Data in this report were obtained from the City Planning Department, the Alabama State Planning and Industrial Development Board, the Industrial Development Board of the city of Montgomery, and Urban Renewal Consultants, Inc. Food wholesalers were interviewed; representative samples of their records were examined; and time studies of selected handling operations were made. Officials of the city, State, and Federal governments, and the various railroads serving Montgomery supplied other data and statistics.

Auburn University Extension Service, as a cooperator in this study, investigated the feasibility of including farmers' market facilities in possible relocation plans for wholesale food firms.

Cost estimates are rounded in the text; exact figures from computations appear in the tables.

## IMPORTANCE OF AGRICULTURE AND FOOD MARKETING IN MONTGOMERY

Greater Montgomery, which comprises all of Montgomery County, Ala., had a population of 142,893 in 1960.[1] The Bureau of Business Research, University of Alabama, projects a population of 268,503 by 1980.

Montgomery is an important center and market for cotton, livestock, and forest products. It lies in the heart of the famous Black Belt, the band of rich, dark soil that stretches almost the entire breadth of the State and embraces about 3,400 square miles. It is estimated the city consumed or shipped about $180 million worth of food products in 1965. It has the largest cattle market in the Southeast, marketing approximately $30 million worth of cattle annually. Rich farmlands and cattle ranches surround the city. There are three large stockyards with complete facilities for handling sales to local packing plants and those in distant cities. Montgomery has many jobbing and

[1] U.S. Bureau of the Census: U.S. census of population, 1960. General, social, and economic characteristics, Alabama. Final Report PC (1) 2C. 251 pp. U.S. Government Printing Office, Washington, D.C., 20402. 1961.

wholesale businesses and is one of the principal cities in the Nation for the manufacture of commercial fertilizer.

Several major Federal and State roads converge on the city; Interstates 65 and 85, U.S. 231, 331, 31, and 80, and State 110 and 143. Six railroads serve Montgomery: The Louisville and Nashville (L. & N.), the Gulf, Mobile, and Ohio, the Atlantic Coast Line, the Central of Georgia, the Seaboard Air Line, and the Western Railway of Alabama. Air service is provided at Dannelly Field, Montgomery's municipally owned airport.

# THE PRESENT MARKETING SYSTEM

## Number of Dealers and Volume of Food Products Handled

The wholesale food business in Montgomery is handled by 41 independent wholesalers and 3 food chain organizations. The independent dealers are classified as follows: The "basic food group" consists of firms that handle the commodities making up most of the volume sold by independent wholesalers. This consists of fresh fruits and vegetables, meat and related products (which includes poultry, eggs, and dairy products), and groceries. Firms specializing in candy, potato chips, paper goods, tobacco products, and other sundry items are considered as "allied food firms." In 1964, 22 of the 41 independent wholesalers were in the basic food group, which received an estimated 165,000 tons of food products; the 19 in the allied food group received 19,000 tons. The basic food group received 18,000 tons of fruits and vegetables, 79,000 tons of meat and related products, and 68,000 tons of groceries. The meat tonnage is high in relation to fruits and vegetables because local meat firms serve as regional distributors, whereas fresh fruit and vegetable dealers do not provide this service.

The food chain organizations handled 295,000 tons of food products. Further reference will not be made to food chain organizations in this report because they either are housed in relatively new and modern facilities or distribute to Montgomery from warehouses outside the city.

The total volume of direct receipts handled by all firms was 479,000 tons. Table 1 shows the number of dealers and the estimated volume of direct receipts.

(A) BN-25727, (B) BN-25725, (C) BN-26026, (D) BN-25726

FIGURE 1.—Some of the marketing facilities in the Montgomery area. (A) A modern one-story food-chain warehouse. (B) A multistory building used as a branch house by a meatpacker. (C) A wholesale fresh fruit and vegetable facility. (D) An old facility used by a meat and related products firm.

TABLE 1.—*Number of wholesalers and estimated volume of direct receipts, by method of transportation, Montgomery, Ala., 1964*

| Type of wholesaler | Wholesalers | Volume of direct receipts [1] | | |
|---|---|---|---|---|
| | | Rail | Truck | Total |
| Basic food group: | *Number* | *Tons* | *Tons* | *Tons* |
| Fresh fruits and vegetables | 7 | 859 | 17, 138 | 17, 997 |
| Meat and related products [2] | 11 | 10, 222 | 68, 412 | 78, 634 |
| Groceries | 4 | 27, 124 | 40, 686 | 67, 810 |
| Total | 22 | 38, 205 | 126, 236 | 164, 441 |
| Allied food group [3] | 19 | 564 | 18, 230 | 18, 794 |
| Total, independent | 41 | 38, 769 | 144, 466 | 183, 235 |
| Food chain organizations [4] | 3 | 105, 263 | 190, 230 | 295, 493 |
| Grand total | 44 | 144, 032 | 334, 696 | 478, 728 |

[1] Does not include intramarket transfers.

[2] Includes direct receipts of 3,509 tons of butter, eggs, cheese, and frozen foods handled by other types of wholesalers.

[3] 3 firms located outside city limits who expressed interest in the study are not included in this table, but will be included in a later section of this report.

[4] Estimated volume of 1 chainstore warehouse in the city and 2 who do not have warehouse facilities in Montgomery. These figures are presented for comparative purposes only.

## Wholesale Food Facilities

Firms in the basic food group are housed in facilities that range from modern single story to very old multistoried buildings. Construction varies from structural steel, concrete block and brick, to wood frame and weatherboarding. Some of the facilities in the Montgomery area are pictured in figure 1.

For descriptive purposes, the Montgomery area is divided into three classifications. These are the central business district, "Other Montgomery," and outside the city. The central business district encompasses the area bounded on the north by the Alabama River and Pollard Street, on the east by Bainbridge from Pollard to Alabama and Lawrence from Alabama to Interstate 85, on the south by Interstate 85, which is one block below Mildred, and on the west, approximately, by Holt Street. "Other Montgomery" covers the rest of the city. "Outside the city" is the Montgomery suburban area.

In the central business district there are six fresh fruit and vegetable dealers, six meat and related products firms, two grocery wholesalers, and seven allied food firms. There are 3 meat and related products firms in Other Montgomery, 1 grocery wholesaler, 1 fresh fruit and vegetable dealer, and 12 allied food firms. Outside the city are two meat and related products firms and one grocery wholesaler. Specific locations by commodity, are shown in figure 2.

### *Fresh Fruits and Vegetables*

The six fresh fruit and vegetable dealers located in the central business district are housed in several types of facilities. All buildings are old or inadequate for present operations. Construction is either brick, concrete block, or wood. Two buildings are multistory, but neither has an elevator. Only one facility has direct rail connections. Most buildings have no rear entrance and only two have platforms. Therefore, dealers must load and unload trucks from ground level, and excessive manual labor is required. Some dealers' buildings are located in downtown Montgomery where traffic congestion is a problem.

Two of the fresh fruit and vegetable dealers listed as wholesalers are located in shed-type buildings in a farmers' market. These buildings are small and inadequate, especially in refrigeration and office space. There are no platforms for loading and unloading. Since these sheds are open on one side, heating is a problem in the winter. Traffic congestion is acute during certain periods of the year.

The one fresh fruit and vegetable dealer located in Other Montgomery is housed in a building converted from a specialized use. Since much of the equipment of the former operation is still intact, only portions of the facility may be utilized. The building is one-story and has platform space in front for loading and unloading trucks; it has no rail connections. The building is constructed of tile blocks and is structurally sound, but in need of repair.

The seven fresh fruit and vegetable dealers have 49,000 square feet of floor space. There is an average of 2,145 square feet of refrigerated space and 440 square feet of office space per dealer. Space other than first floor amounts to 21 percent of total space. Six dealers rent their facilities and one owns his.

### *Meat and Related Products*

Six meat and related products wholesalers are located in the central business district. Three of these wholesalers are housed in old buildings, one in an adequate structure, and the other two in modern facilities. These buildings are brick or concrete block construction. Two buildings are multistory and are equipped with freight elevators. These two buildings and one other have direct rail connections. Two of the six firms do not have platform space.

Three meat and related products firms are in Other Montgomery in buildings that are old and in need of repair. The buildings are constructed of brick, concrete block, and wood. One firm has rail connections and all three have platforms for loading and unloading. One firm is located on

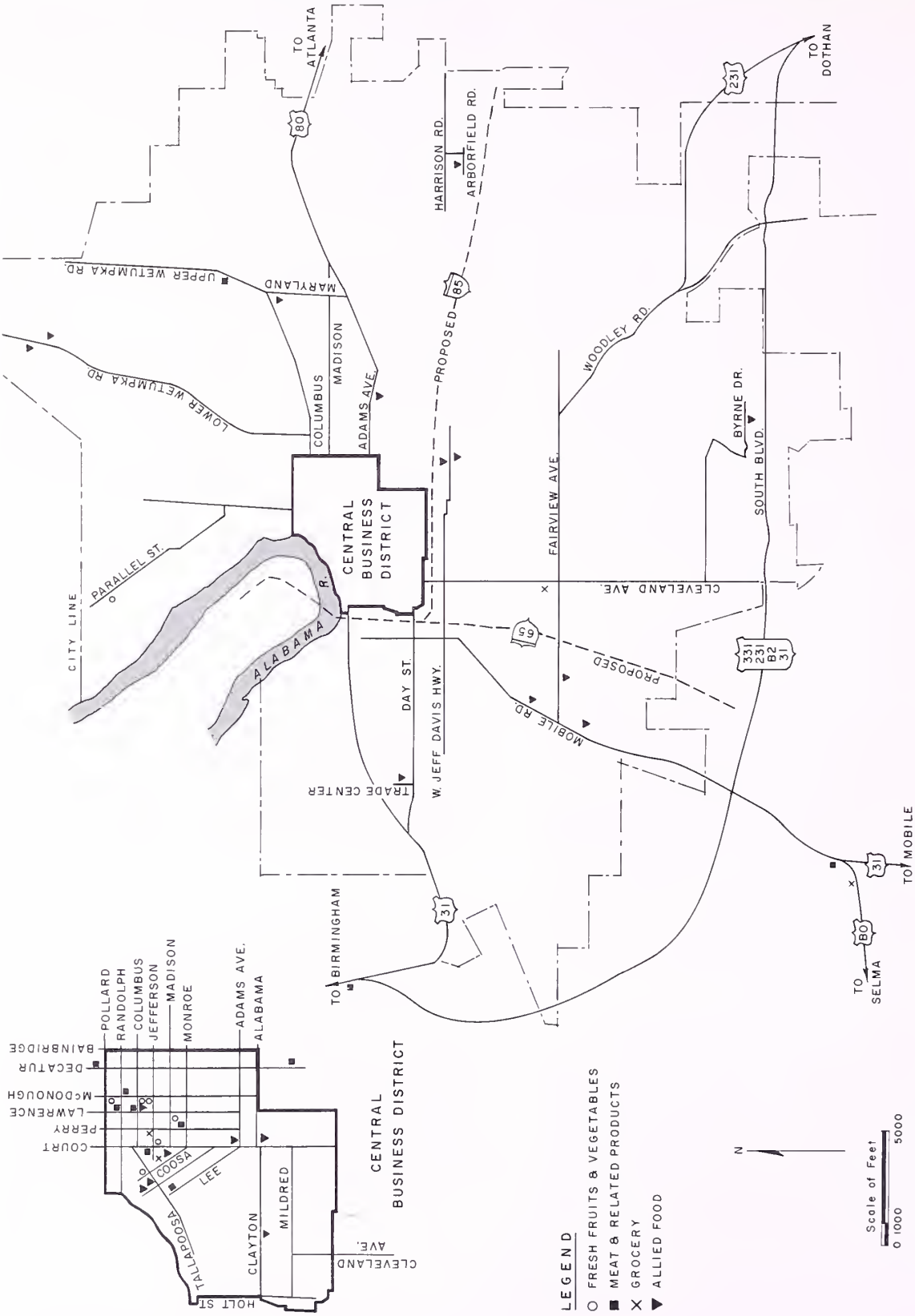


FIGURE 2.—Locations of dealers in the Montgomery area. Details of the central business district are given in the upper left-hand corner.

a heavily traveled street and often has traffic problems.

One of the two meat and related products firms located outside the city is housed in a building that was not intended for food use. This building is old and in need of repair. Neither firm has direct rail connections.

The 11 meat and related products firms have 289,000 square feet of floor space. The average refrigerated space is about 7,700 square feet and office space is 1,000 square feet per firm. Space above the first floor was 46 percent of total space. Four of the firms rent and seven own their facilities.

### Groceries

Two grocery wholesalers, located in the central business district, are housed in buildings that are inadequate for their present operation. These buildings are constructed of brick; only one has a freight elevator. The buildings have platform space and are served by rail. The platform space at rail connections is used by trucks at times, and there is an overall shortage of platform space.

The buildings have low ceilings or are arranged in a way that restricts the use of modern handling equipment. Neither firm has adequate freezer or cooler space for present operations. Parking is insufficient for customers, salesmen, and employees.

One grocery firm is located in Other Montgomery in a one-story building constructed of concrete block. There are no rail connections at this building. The building has no platform space, and all shipments move through the front entrance. The layout of the building and lack of space prevent the use of modern handling equipment.

The grocery firm located outside the city is housed in a modern one-story building designed specifically for its operation. The construction of this building is steel, concrete block, and brick. A number of food firms in the same area are engaged in processing and wholesaling. There is good access to the various highways and ample parking and expansion areas.

The four grocery firms have 270,000 square feet of floor space. The average refrigerated area is 10,000 square feet and office space is 3,400 square feet per firm. Space above the first floor is 24 percent of total space. Two firms own their facilities and two rent. Other space data may be seen in table 2.

TABLE 2.—*Tenure status and space used by 41 wholesalers, Montgomery, Ala., 1964*

| Type of wholesaler and space | Tenure status | | Space usage | | | | Average per wholesaler |
|---|---|---|---|---|---|---|---|
| | Rent | Own | Refrigerated | Office | Other use | Total | |
| Basic food group: | | | | | | | |
| Fresh fruits and vegetables: | *Number* | *Number* | *Sq. ft.* | *Sq. ft.* | *Sq. ft.* | *Sq. ft.* | *Sq. ft.* |
| First floor | | | 15, 012 | 1, 483 | 22, 487 | 38, 982 | 5, 569 |
| Other floors | | | 0 | 1, 600 | 8, 800 | 10, 400 | 1, 486 |
| Total | 6 | 1 | 15, 012 | 3, 083 | 31, 287 | 49, 382 | 7, 055 |
| Meat and related products: | | | | | | | |
| First floor | | | 75, 798 | 8, 250 | 73, 597 | 157, 645 | 14, 332 |
| Other floors | | | 8, 800 | 3, 000 | 119, 940 | 131, 740 | 11, 976 |
| Total | 4 | 7 | 84, 598 | 11, 250 | 193, 537 | 289, 385 | 26, 308 |
| Groceries: | | | | | | | |
| First floor | | | 25, 360 | 13, 500 | 164, 940 | 203, 800 | 50, 950 |
| Other floors | | | 15, 040 | 0 | 50, 960 | 66, 000 | 16, 500 |
| Total | 2 | 2 | 40, 400 | 13, 500 | 215, 900 | 269, 800 | 67, 450 |
| Allied food group: | | | | | | | |
| First floor | | | 400 | 5, 300 | 80, 740 | 86, 440 | 4, 550 |
| Other floors | | | 0 | 0 | 24, 000 | 24, 000 | 1, 263 |
| Total | 14 | 5 | 400 | 5, 300 | 104, 740 | 110, 440 | 5, 813 |
| Independent wholesalers: | | | | | | | |
| First floor | | | 116, 570 | 28, 533 | 341, 764 | 486, 867 | 11, 875 |
| Other floors | | | 23, 840 | 4, 600 | 203, 700 | 232, 140 | 5, 662 |
| Total [1] | 26 | 15 | 140, 410 | 33, 133 | 545, 464 | 719, 007 | 17, 537 |

[1] 3 firms outside the Montgomery area expressed interest in this study. Space used by these firms is not included here, but the firms have been included in later sections of this report.

BN 25729 and BN 25724

FIGURE 3.—(A) A multistory warehouse and (B) an old one-story building used by allied food firms.

### *Allied Foods*

The 19 allied food firms are scattered throughout the Montgomery area with a small concentration in the central business district. The facilities vary from newly constructed, one-story buildings with modern layouts to very old and inadequate structures. The buildings are constructed of steel, brick, concrete block, and wood. Two buildings are multistoried and require an elevator for full utilization. Only one firm has direct rail connections at its facility. However, several of these firms do not require rail service for their operations. The chief need of firms that should relocate is space, both for present operations and for expansion.

The 19 firms have an estimated 86,000 square feet of first floor space, or an average of 4,500 square feet each. Total office space is 5,300 square feet, or 279 square feet per firm. There are 14 firms that rent and 5 that own their facilities. Some buildings occupied by allied food firms may be seen in figure 3.

## Source of Supplies

Food commodities handled by 22 wholesale food dealers in the basic food group in Montgomery originated from local sources, other firms within the State, and areas outside the State. The volume handled and a breakdown showing the amounts originating in Alabama and outside the State, along with interdealer movement, may be seen in table 3.

About 25 percent of the fresh fruit and vegetable volume came to Montgomery from points in Alabama. Direct receipts of fresh fruits and vegetables arrived primarily by trucks from the major producing areas. Interdealer movement in Montgomery was relatively small in comparison with other cities of its size.

TABLE 3.—*Source of food products handled by 41 wholesalers, Montgomery, Ala., 1964*

| Type of wholesaler | Source of supply | | | Interdealer transfer | Total volume handled [1] |
|---|---|---|---|---|---|
| | Within Alabama | Outside State | Total direct receipts | | |
| Basic food group: | *Tons* | *Tons* | *Tons* | *Tons* | *Tons* |
| Fresh fruits and vegetables | 4, 522 | 13, 475 | 17, 997 | 563 | 18, 560 |
| Meat and related products | 25, 546 | 53, 088 | 78, 634 | 565 | 79, 199 |
| Groceries | 6, 813 | 60, 997 | 67, 810 | 95 | 67, 905 |
| Total | 36, 881 | 127, 560 | 164, 441 | 1, 223 | 165, 664 |
| Allied food group | 6, 005 | 12, 789 | 18, 794 | 578 | 19, 372 |
| Grand total | 42, 886 | 140, 349 | 183, 235 | 1, 801 | 185, 036 |

[1] Direct receipts plus volume moved between operators.

Over 30 percent of meat, poultry, and related products was supplied from sources within Alabama. As in the other food groups, a relatively small amount of interdealer movement was involved. Meat and meat products were received from local slaughterers and meatpackers or from the Midwest. About 68 percent came from sources outside the State. The egg wholesalers either have their own flocks or contract with local producers for their supply. Local poultry processors receive their supply from within Alabama. National packers may distribute poultry products from out-of-State sources during peak demand periods.

There were no firms that handled butter, margarine, or cheese exclusively. These commodities were handled by meat and related products and grocery firms or were received directly by retailers from producing areas.

Most of the groceries originated outside the State. There was very little movement between dealers within the city. Grocery wholesalers received about 40 percent of their supplies by railroad car. This was higher than any other food commodity.

It is estimated that in 1964, 68 percent of the total volume handled by allied food firms came from sources outside the State of Alabama. The rest came from sources within the State. Interdealer movement is approximately 3 percent of total volume. Much of the interdealer movement is with firms in the basic food group.

## Distribution of Supplies

Ninety-five percent of the volume of all commodities was delivered by the wholesalers. This varied from 78 percent of the fresh fruits and vegetables to 99 percent of the volume of the allied food firms. Specific amounts delivered by wholesalers or picked up by customers are shown in table 4.

TABLE 4.—*Methods of distribution used by 41 wholesalers, Montgomery, Ala., 1964*

| Type of wholesaler | Delivered by wholesaler | Picked up by customer | Total |
|---|---|---|---|
| Basic food group: | | | |
| Fresh fruits and vegetables | *Tons* 14, 096 | *Tons* 3, 901 | *Tons* 17, 997 |
| Meat and related products | 75, 489 | 3, 145 | 78, 634 |
| Groceries | 65, 775 | 2, 035 | 67, 810 |
| Total | 155, 360 | 9, 081 | 164, 441 |
| Allied food group | 18, 644 | 150 | 18, 794 |
| Grand total | 174, 004 | 9, 231 | 183, 235 |

Many of the allied food firms are highly specialized. They furnish retail outlets with display racks and keep rigid restocking schedules to insure the freshness of their product; thus, these firms have a high turnover of their product.

Many food wholesalers in Montgomery distribute largely within a 50-mile radius of the city. However, some firms deliver to other parts of Alabama and to Mississippi, Florida, and Georgia. Of all commodities handled, 162,700 tons, or 89 percent, was distributed within Alabama. The percentage distributed within Alabama ranged between 78 percent for meat, poultry, and related products to almost 100 percent for fresh fruits and vegetables. Very little produce was reported distributed outside the State. Volumes distributed within Montgomery and to other areas are shown in table 5.

Twenty-nine percent of total direct receipts is distributed within Montgomery. Of the supplies distributed within a 50-mile radius of Montgomery by independent wholesalers, 23 percent moved northwest, 37 percent moved northeast, 18 percent

TABLE 5.—*Area of distribution of 41 wholesalers, Montgomery, Ala., 1964*

| Type of wholesaler | Distributed within— | | | | Distributed outside the State | | Total volume |
|---|---|---|---|---|---|---|---|
| | Greater Montgomery | | Other parts of Alabama | | | | |
| | Volume | Percentage of total | Volume | Percentage of total | Volume | Percentage of total | |
| Basic food group: | *Tons* | *Percent* | *Tons* | *Percent* | *Tons* | *Percent* | *Tons* |
| Fresh fruits and vegetables | 5, 399 | 30 | 12, 598 | 70 | (1) | (1) | 17, 997 |
| Meat and related products | 19, 659 | 25 | 41, 676 | 53 | 17, 299 | 22 | 78, 634 |
| Groceries | 20, 343 | 30 | 44, 755 | 66 | 2, 712 | 4 | 67, 810 |
| Total or average | 45, 401 | 28 | 99, 029 | 60 | 20, 011 | 12 | 164, 441 |
| Allied food group | 7, 893 | 42 | 10, 337 | 55 | 564 | 3 | 18, 794 |
| Grand total | 53, 294 | 29 | 109, 366 | 60 | 20, 575 | 11 | 183, 235 |

[1] Negligible distribution reported outside the State.

southeast, and 22 percent southwest. Montgomery distribution channels are restricted to the north by Birmingham, to the south by Mobile, and to the east by Atlanta.

Andalusia, Tuscaloosa, Demopolis, Clanton, and Auburn were among the major distribution points outside the 50-mile radius.

## Selected Costs Incurred by Wholesalers

The major costs of marketing food products depend on the handling operation or the physical movement of merchandise. The type, design, and condition of the facility and the methods of handling directly affect the costs incurred. Each movement or transfer of product increases handling costs and losses from spoilage, breakage, or deterioration. The following costs are measurable and reflect the adequacy and efficiency of the facilities and operations of the wholesaler:

1. Costs from the first point of arrival within the Montgomery area to the wholesale facility.
2. Costs within the market area, including operations within facilities and handling between wholesalers.
3. Actual facility rentals, or comparable rental value for facilities owned by wholesaler.
4. Other estimated costs for spoilage, deterioration, breakage, and shrinkage.

No costs were enumerated for the allied food firms because of the great diversity of their operations. Nonmeasurable costs, such as the inconveniences caused by old and inadequate facilities, poor sanitation in some instances, and poor working conditions, add to the cost of distributing products by several of the allied food firms.

The costs for the basic food group were estimated from data obtained from firms interviewed. This information was used to develop average costs for those wholesale operations included in the cost analysis where charges are allocated on an individual firm basis. All costs were checked either by time studies or by comparison with similar operations in other markets in the United States.

### Handling and Interdealer Transfer Costs

Handling and interdealer transfer costs are costs incurred from the point of arrival in Montgomery through the wholesale facilities. Since the tonnage carted was not significant and avoidable delay due to traffic congestion was not a major problem, costs of cartage and avoidable delay were included with costs of handling in the market and interdealer transfers.

Handling includes all unloading operations at the facility, movement into and within the wholesale facility, and loading the outbound trucks for delivery. Operations within the facility include sorting, order preparation, and processing where applicable. Costs of electric lighting, water, heat, advertising, management, selling, and telephone do not depend on the type of facilities and are not included in the handling costs.

Handling costs are indicative of the number of operations required. For example, meat requires more operations than any other group, and the highest handling cost per ton is for meat and related products. The costs shown in table 6 are averages of the costs of all types of wholesale activities and cannot be compared with the costs of an individual firm. As an example, the cost per ton of a sausage maker would be greater than that of a meat distributor who delivers carcass meat taken from rail cars.

The estimated costs for handling and interdealer transfer of 165,700 tons of food in present wholesale facilities totaled $725,800, or $4.38 per ton (table 6).

Interdealer transfers of all commodities were low compared with those of other cities of similar size.

TABLE 6.—*Estimated costs of handling food in present wholesale food marketing facilities, Montgomery, Ala., 1964*

| Type of wholesaler | Volume | Cost | |
|---|---|---|---|
| | | Per ton | Total |
| | *Tons* | *Dollars* | *Dollars* |
| Fresh fruits and vegetables | 18, 560 | 3. 25 | 60, 301 |
| Meat and related products | 79, 199 | 5. 24 | 415, 336 |
| Groceries | 67, 905 | 3. 68 | 250, 157 |
| Total or average | [1] 165, 664 | 4. 38 | [2]725, 794 |

[1] Includes 1,223 tons of interdealer movement.
[2] Includes cost of cartage.

### Spoilage, Deterioration, Breakage, and Shrinkage

Spoilage, deterioration, and shrinkage were costly to wholesalers in facilities lacking refrigerated space. Frequent handling resulted in added breakage and spoilage losses. These costs were derived from estimates submitted by local wholesalers and through observations. In addition, comparisons were made with similar operations in other cities. In the basic food group waste averaged $1.73 per ton (table 7). This represents about 1.5 percent of the value per ton of fresh fruits and vegetables, about 0.5 percent for meat and poultry, and 0.3 percent for groceries.

### Rents

Present rental arrangements were discussed with dealers at the time data were collected. The data are the actual rents paid by wholesalers using any type of lease and estimated rental value for wholesalers who owned their facilities. For dealers who owned their facility, rent was estimated by

TABLE 7.—*Estimated costs of spoilage, deterioration, breakage, and shrinkage of food products in present wholesale food marketing facilities, Montgomery, Ala., 1964*

| Type of wholesaler | Volume | Cost | |
|---|---|---|---|
| | | Per ton | Total |
| | *Tons* | *Dollars* | *Dollars* |
| Fresh fruits and vegetables | 18, 560 | 2. 06 | 38, 155 |
| Meat and related products | 79, 199 | 2. 10 | 166, 684 |
| Groceries | 67, 905 | 1. 21 | 82, 015 |
| Total or average | [1] 165, 664 | 1. 73 | 286, 854 |

[1] Includes 1,223 tons of interdealer movement.

averaging rents for similar space in the immediate area.

The total annual rent or rental value for all wholesale food dealers in Montgomery included in the study was estimated at $344,000, or an average of 63 cents per square foot of floor space used. The average per-ton rental was estimated at $2.09. Details of rental costs, by commodity, are shown in table 8. These estimates include rentals paid by two dealers classed as wholesalers on the farmers' market, but do not include rents paid for farmers' stalls, container sheds, brokers' offices, or similar facilities.

TABLE 8.—*Estimated costs of rent in the present wholesale food facilities, Montgomery, Ala., 1964*

| Type of wholesaler | Direct receipts | Cost | |
|---|---|---|---|
| | | Per ton | Total |
| | *Tons* | *Dollars* | *Dollars* |
| Fresh fruit and vegetables | 17, 997 | 1. 02 | 18, 320 |
| Meat and related products | 78, 634 | 2. 66 | 209, 236 |
| Groceries | 67, 810 | 1. 72 | 116, 420 |
| Total or average | 164, 441 | 2. 09 | 343, 976 |

## *Summary of Selected Costs*

The selected costs of moving all commodities through the Montgomery area averaged $8.25 per ton. The highest costs were in the handling operations (table 6). The following tabulation shows the combined selected costs (tables 6 to 8) of Montgomery wholesalers in the basic food group:

| | |
|---|---|
| Fresh fruits and vegetables | $116, 776 |
| Meat and related products | 791, 256 |
| Groceries | 448, 592 |
| Total | 1, 356, 624 |

## *Nonmeasurable Costs*

Long operating hours, inconveniences caused by inadequate facilities, substandard sanitation, poor working conditions, and lack of adequate safety precautions add to the total cost of moving food products through wholesale facilities. Police and fire protection are also examples of costs that can be affected by the kinds of marketing facilities used and their location. Costs of telephones, bookkeeping, postage, and purchasing activities would not be materially affected by the facilities used.

# Need for Changes in Facilities

Food wholesalers in Montgomery are widely scattered throughout the city and suburbs. Many firms are housed in buildings that are very old and inadequate or structures that were built for other uses. Most of these buildings result in inefficient operations.

Firms located in multistory buildings have either narrow steps or slow freight elevators for utilization of upper floors. Most buildings do not have platforms for loading and unloading. Under present arrangements few firms can use modern handling equipment.

Some dealers expressed satisfaction with their present locations, but others were not satisfied with their layout or noted a lack of area in which to expand. Since most firms do not have rail connections at their facility, their rail shipments are moved from team tracks.

Several firms are located very close to streets, and loading operations often block pedestrian traffic or customer access. Some firms in the central business district lack adequate parking for employees, salesmen, and customers.

Several food firms in Montgomery have realized the expense of operating in inefficient facilities. Some of these firms have moved into new buildings or are in various stages of planning and constructing new facilities.

There are many advantages to be derived from food wholesalers' being located together. A small buyer would find it easier to obtain a complete line of food; small dealers could split a shipment in a single rail car; a common parking area could be utilized; and security measures would be easier to enforce. Facilities such as public warehouses, railroad tracks, and offices for brokers and other related businesses could be located so that they would be convenient to the food firms.

As a result of pending urban redevelopment and highway improvement programs in the city, several firms may be displaced. Any proposed development for food wholesalers should provide for these firms. It was assumed that all food firms in the area would eventually relocate except those housed in modern facilities.

# HOW THE MARKET CAN BE IMPROVED

## Kind and Amount of Facilities Needed

The only satisfactory and economical solution to the defects of the present market in the long run is to build new facilities. They should be designed to meet present conditions and, insofar as possible, to anticipate future needs.

Problems such as lack of rail facilities, absence of platforms or insufficient platform space, restricted access to rear of buildings because of narrow streets or alleys, and lack of expansion area cannot be remedied at present locations.

As a result of this study 19 wholesale food firms in Montgomery have been included in new market plans. This includes all firms in the basic food group now located in the central business district, with the exception of firms who have made definite commitments to relocate elsewhere or firms not suited for location on a food center. Most of the firms included stated they were interested in new facilities.

The needs of these firms and the allied food firms in Montgomery could be met with the following:

1. Two multiple-occupancy buildings, one of which would be for fruit and vegetable operations and the other for allied food firms and grocery dealers.
2. Seven single-occupancy buildings containing 130,000 square feet. Three of these buildings are proposed for meat and related products firms, one for a grocery firm, and three for allied industry firms.
3. A farmers' market in two shed-type buildings on 3 acres at the entrance to the market with public restrooms in one shed.
4. A restaurant including restrooms.
5. Railroad house tracks behind buildings to accommodate 34 cars.
6. Paved streets at least 200 feet wide where buildings face each other and at least 60 feet wide between farmers' market sheds.
7. Space for expansion to permit construction of additional facilities as needed.
8. Parking space for 400 vehicles in addition to the loading and unloading space at the platforms of buildings.
9. Space in an allied industry area for a refrigerated warehouse.
10. Acreage reserved for firms located outside Montgomery who may locate at some future time in the food distribution center.

*Actual construction should be based on the space needed by responsible tenants who will sign firm agreements to lease the facilities. Overbuilding at the start of the project should be avoided so that there will be no unoccupied space.*

Individual-occupancy buildings should meet the tenants' needs. They should be single story with offices located on the first floor. Utility requirements would be similar to those for multiple-occupancy buildings.

Many firms are not large enough to use a whole building. To meet the needs of these moderate-volume firms, a building was designed to house a number of dealers. This type of facility is usually referred to as a multiple-occupancy building; the individual units making up the complete building are generally referred to as standard units.

The multiple-occupancy building should incorporate certain basic features. Platforms, both front and rear, should be 14 feet deep to permit the use of modern materials-handling equipment. The roof over the front platform should extend at least 6 feet beyond the edge for protection during loading and unloading in inclement weather. The platform should be 45 inches above the pavement. If refrigerated rail cars are expected, the height of the rail dock should be 55 inches from the top of the rails. A bumper should be provided along both platforms to prevent damage to the platform edge from backing trucks. A continuous step, 24 inches wide and 22 inches high, would accommodate the loading and unloading of moderate size trucks along the front platform. Steps for pedestrians should be set into the front platforms at intervals of approximately 100 feet.

A typical standard unit for a multiple-occupancy building is shown in figure 4. The unit is 25 feet wide and 72 feet deep, and the ceiling is 20 feet high; 14-foot front and rear platforms make the overall length of the unit 100 feet. A 15-foot mezzanine across the rear of the unit may be used for either offices or storage. Each unit contains 1,800 square feet of enclosed first floor space, 375 square feet of mezzanine space, and 700 square feet of platform space, a total of 2,875 square feet.

All floors in the standard unit are concrete with a nonskid surface; they can bear a live load of 350 pounds per square foot. The main floor slopes to adequate drains. The front door, an overhead type, is 8 feet wide, and the double door at the rear is 6 feet wide. Electrical outlets are provided where needed. Plumbing includes a restroom on the mezzanine. Windows are placed in the mezzanine walls to allow observation of the main floor operations.

Certain basic requirements differ among dealers and could be provided at their own discretion. Each tenant should provide his own heating equipment and finish his own offices. Refrigeration needs may vary considerably with each firm and should be planned and installed individually.

### Fresh Fruit and Vegetable Buildings

The 5 fresh fruit and vegetable firms considered as possible tenants in new food facilities would require 12 standard units. Two other small fresh fruit and vegetable wholesalers have been provided

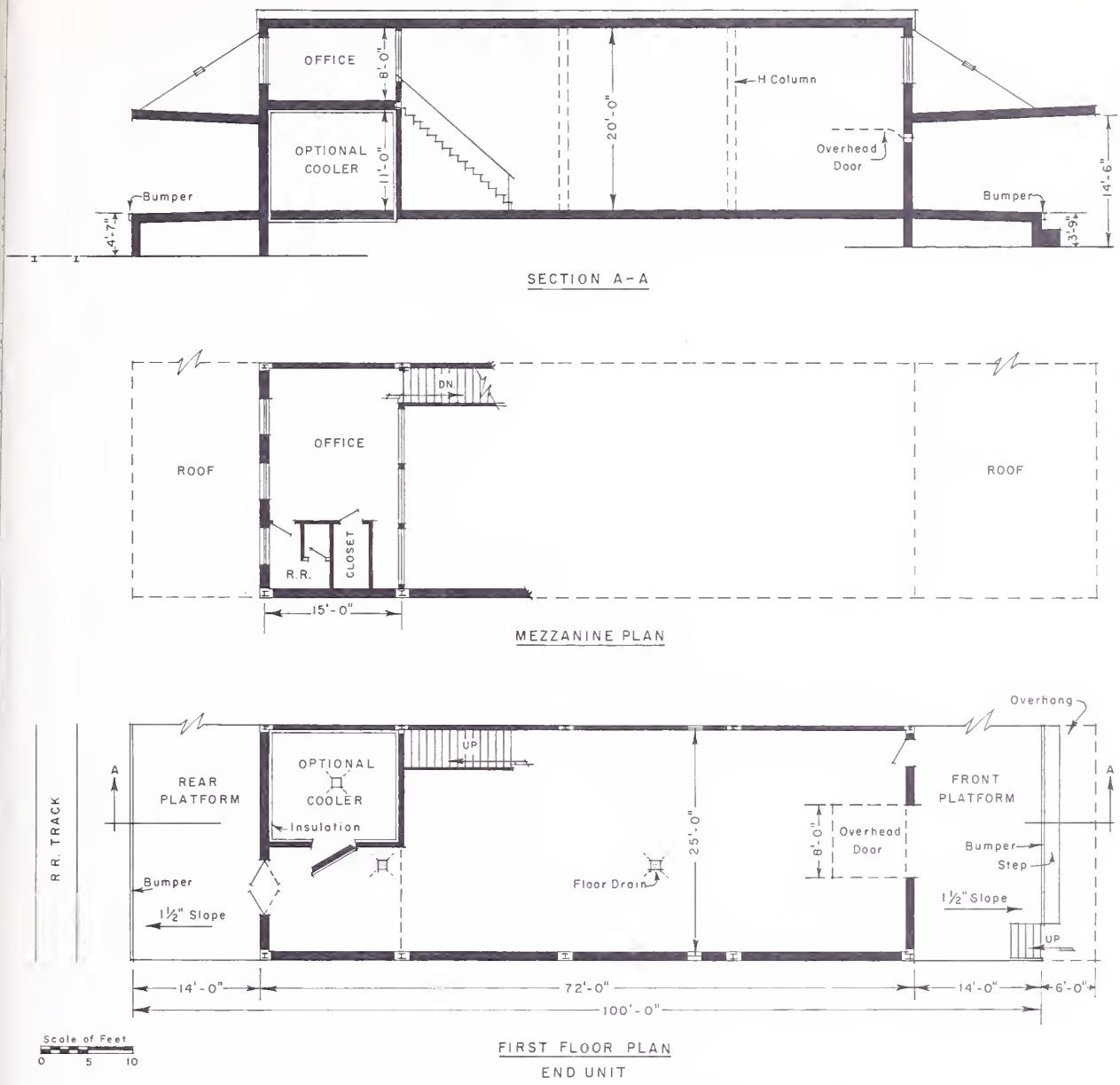


FIGURE 4.—A typical standard unit for a multiple-occupancy building. The unit could be modified for grocery dealers by placing the mezzanine at the front of the store instead of at the rear.

space in the farmers' market. One firm, located outside the Montgomery area, would consider renting four standard units in a new facility. This firm has not made a final decision to locate in Montgomery; therefore, its space requirements will not be considered further in this report.

The 5 firms handled 16,344 tons of fresh fruits and vegetables in 1964.

Total floor space planned for fresh fruits and vegetables, excluding the farmers' market, is 30,000 square feet on the first floor and 4,500 square feet of mezzanine space. This is 13,900 square feet less than these firms presently use. The difference is based on the greater efficiency made possible by operating in modern single-level facilities and making fuller use of available space.

The fresh fruit and vegetable firms would occupy units with dimensions the same as the typical standard unit previously described. Mezzanines would be at the rear of the units.

A single rail track should be provided parallel to the rear platform. An access track would be unnecessary because of the length of the building. For better utilization of house tracks, consideration should be given to locating wholesalers who receive large quantities by rail next to those who receive only a few such cars.

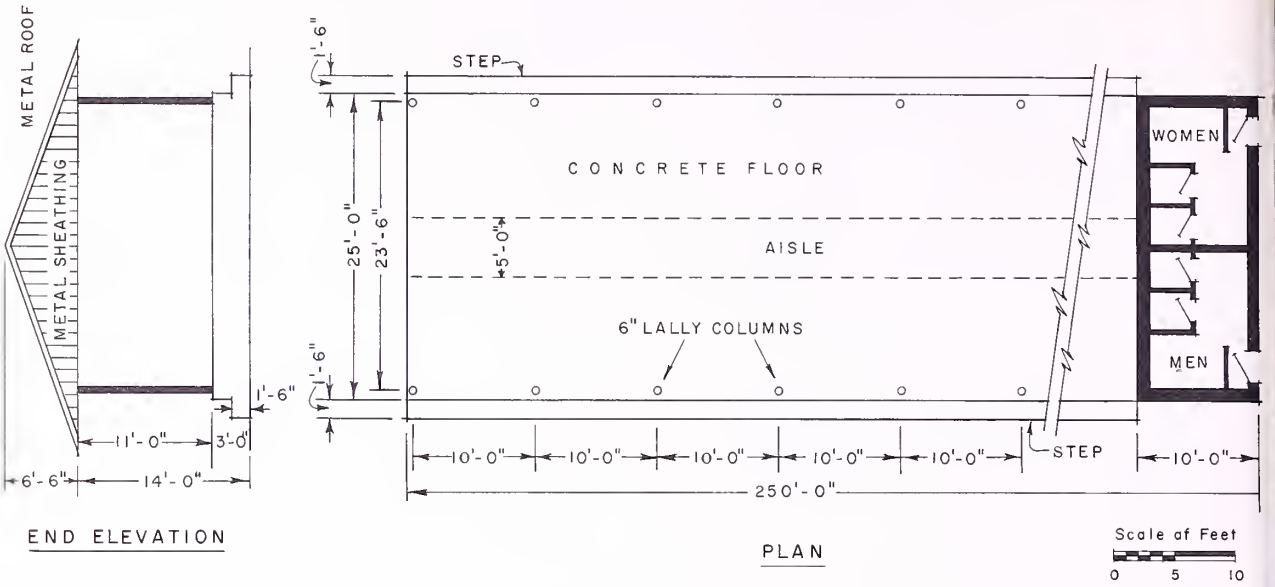


FIGURE 5.—A typical farmers' shed with restrooms at one end.

## The Farmers' Market Area

Two shed-type structures containing 49 individual stalls and restrooms should be provided to house the farmers and wholesalers desiring to use this type of facility. Open stalls in the public parking area should meet the requirements of other growers and seasonal peaks.

The layout of a typical farmers' shed with 24 stalls and restrooms is shown in figure 5. The shed is 250 feet long and 25 feet wide. It has a platform 36 inches high. The second shed would be the same size, but it would have another stall in place of the restrooms.

The stalls are 10 feet wide and 20 feet deep (excluding center aisle). Farmers desiring more space could rent two or more adjacent stalls.

Main entrances and exits are at both ends of the sheds, except where public restrooms are provided. A 5-foot-wide aisle runs lengthwise of the shed through the stalls. Eaves are 14 feet above the pavement; they have a 6-foot overhang to permit farmers to back their trucks far enough into the sheds to keep tailgates out of the weather.

Assuming that the farmers' market operations would be similar to those in existing markets, produce would be displayed either on the tailboard of the truck or on the platform. Wholesale quantities would be transferred from one truck to another in the public parking area during specified hours.

A street has been provided between the two buildings.

## Meat and Related Products Buildings

To accommodate the three meat and related products firms in need of new facilities, three single-occupancy buildings are planned. One firm located outside the Montgomery area is considered as a possible tenant in a new food center. The firm's interest is such that plans have been prepared; however, as the decision is not yet final, its space requirements will not be discussed further in this section of the report.

Firms considered as tenants of new facilities handled approximately 19,000 tons. The floor space required to handle this volume is 40,000 square feet. The recommended space is approximately 13,600 square feet less than these firms are using in their existing facilities.

## Grocery Buildings

Two grocery wholesalers are expected to require an individual building with 30,000 square feet of floor space and 2 standard units with 5,750 square feet of floor space. The individual grocery building could be designed to meet the dealer's specifications, but should conform with all codes and the master plan for the market. The interior layout of the building should be at the discretion of the tenant.[2]

The two standard units would be located in the allied food multiple-occupancy building. These two units could be modified, insofar as possible, to meet the dealer's specific needs. One desirable modification would be having the mezzanine at the front of the store instead of the rear. This would permit the use of three-high pallet racks in the storage area at the rear of the store. Order assembling, which does not require high stacking, could be done at the front of the store in the space under the mezzanine. The total volume handled

[2] BOUMA, JOHN C., and LUNDQUIST, ARNOLD L. GROCERY WAREHOUSE LAYOUT AND EQUIPMENT FOR MAXIMUM PRODUCTIVITY. U.S. Dept. Agr. Mktg. Res. Rpt. 348, 58 pp., illus.

by these firms is not given, to prevent the disclosure of individual data. Recommended space is approximately 37,800 square feet less than they presently use. This reduction in space results from the greater efficiency possible in modern facilities and more complete utilization of space.

The operating conditions in wholesale grocery facilities are different from those in facilities for perishable foods. Because grocery products usually have a longer turnover period than other food commodities, the volume per square foot of floor space is lower.

### Allied Food Buildings

Both individual and multiple-occupancy buildings are needed to house the allied food firms that would find it advantageous to move into a wholesale food distribution center. Seven firms handling an estimated 9,700 tons of products would be housed in 3 single-occupancy buildings and 10 units of a multiple-occupancy building. These facilities would provide 60,000 and 28,750 square feet of floor space, respectively. The recommended space is approximately 20,950 square feet more than these firms are now using. Space requirements are based upon individual operators' estimates of space needed for more efficient operation. It was observed that most of these firms were operating in buildings with much less floor space than they needed.

Four of the allied food firms would be housed in 1 multiple-occupancy building 300 feet long and 100 feet wide containing 12 standard units, two of which would be used by a wholesale grocery firm. The units would have the same dimensions as the typical standard unit. The individual firm could alter the interior of a unit to suit its particular needs.

The allied food firms in the multiple-occupancy building are expected to use only a limited amount of rail service; therefore, a single house track would be provided. The building would be located so that waiting railroad cars would not block the rail facilities of other firms. Should increased rail traffic warrant, an additional house track could be provided at some future date.

### Public Refrigerated Warehouse

During the course of the study, the present and future need for cooler or freezer space in addition to that in individual tenants' facilities was discussed and evaluated.

It was concluded that construction of additional facilities at present is unwarranted. In consideration of the projected growth of the Montgomery area and the expansion of pecan and peanut production, it is recommended that land be set aside for a public refrigeration facility that would contain 30,000 square feet of first-floor space.

There were several reasons to conclude that additional facilities were not needed for the present. Most of the pecan and peanut crops can be stored in the producing area at newly built facilities in Dothan and Andalusia, and ample storage space is available in Montgomery at this time to handle local pecan production and other food requirements. Furthermore, existing facilities could be modified to increase their present capacity.

Other factors considered were that several large firms that have recently constructed new facilities increased cooler and freezer space, and construction now underway will provide additional cooler and freezer capacity. Some of these firms could supply service if peak production demanded it, and they have stated they would be willing to do so.

Finally, the income from supplying the cooling service needed by the wholesalers who might be expected to move to the new food center would not be sufficient for a new cold storage facility to break even.

### Rail Connections to Buildings

Rail connections have been planned to serve only buildings expected to house tenants receiving an appreciable amount of their volume by rail. Plans provide for rail facilities to be extended to other buildings on the market as the need becomes apparent. Where two tracks are provided, the outside track is usually for access. When rail receipts are heavy, rail cars could be placed on the outside tracks and unloaded through the car on the house track. The outside track could also be used as a team track.

The streets adjacent to the rail platforms of the single- and multiple-occupancy buildings should be paved between the rails and level with the top of the rails. This permits these platforms to be used for loading and unloading trucks when the tracks are not occupied and allows the use of mechanized equipment for street cleaning.

### Streets and Parking Areas

Because connecting highways between existing and planned major arteries and the market area are to be provided by the city, county, or State, the cost of such highways or roads is not considered in the cost of the market. The streets in the food center should be paved to carry heavy traffic. As these streets are a part of the market they are included in the paving costs shown later in this report for each of the food groups. Paving should consist of a 7-inch rock and gravel foundation, 4 inches of macadam, and 2 inches of asphaltic concrete surface.

All parking adjacent to the buildings should be at right angles to the loading platforms. When center parking is provided between two rows of buildings, the streets should be at least 200 feet wide to provide for right-angle parking of trucks on both sides of the street and sufficient space for

209-586 O—66——3

traffic. Other streets in the market should be at least 60 feet wide to allow two-way traffic. Areas should be set aside for angle parking of cars and trucks.

Convenient parking spaces should be provided adjacent to the buildings and the farmers' market for the use of persons employed or having business in the wholesale food center. The parking areas should be as near as possible to the facilities they are intended to serve, but not close enough to interfere with loading or unloading operations. They should be marked off to permit orderly parking and to conserve space. Parking should be provided for approximately 400 cars and trucks in addition to truck spaces along store platforms and the farmers' market.

### *Restaurant*

A single standard unit has been provided to house a restaurant for the market. The restaurant should be convenient for all persons using the market and should be leased to a suitable tenant. Restaurant equipment would be provided by the restaurant management.

A public restroom should be located adjacent to the restaurant. The equipment, plumbing, and maintenance of this facility should be provided by the market.

### *Fencing*

Fencing may be provided around the market to aid in the regulation of operating hours and the protection of the tenants' property.

Fencing should be at least 8 feet high, topped with barbed wire, and provided with gates at suitable locations. Estimates have not been included for fencing, but the cost is estimated at $3.50 per linear foot.

## Acreage Required and Arrangement of New Facilities

It is very important that a master plan be adopted at the outset of the project so that the first buildings constructed will not interfere with the development of the remaining area.

The arrangement of facilities will depend on the physical features of the site selected. The location of access streets and rail tracks also influences possible building locations. If the market center is to operate efficiently, the facilities must be arranged for maximum coordination of functions. Facilities must be arranged so that, in future expansion, they will form an integral and coordinated part of the center. Space for expansion should be provided adjacent to each food group. Wholesalers in each of the food groups should be placed together, when possible, for maximum efficiency in construction and management. Each food group should be located on the market in such a manner as would minimize traffic problems. Groups of buildings of similar size and type should be alined to avoid wasted space and to provide for streets of standard width. Wholesalers using rail should be located as close as possible to the lead-in track to minimize the cost of installation. Streets should be designed to permit an uncongested flow of traffic through the market and should be wide enough for trucks to maneuver. Access from the site of primary highways and railroads is essential. Parking should be convenient but should not interfere with loading and unloading operations at the wholesale facilities.

Approximately 50 acres will be required to arrange the two multiple-occupancy buildings and seven single-occupancy buildings so that marketing functions can be performed efficiently.

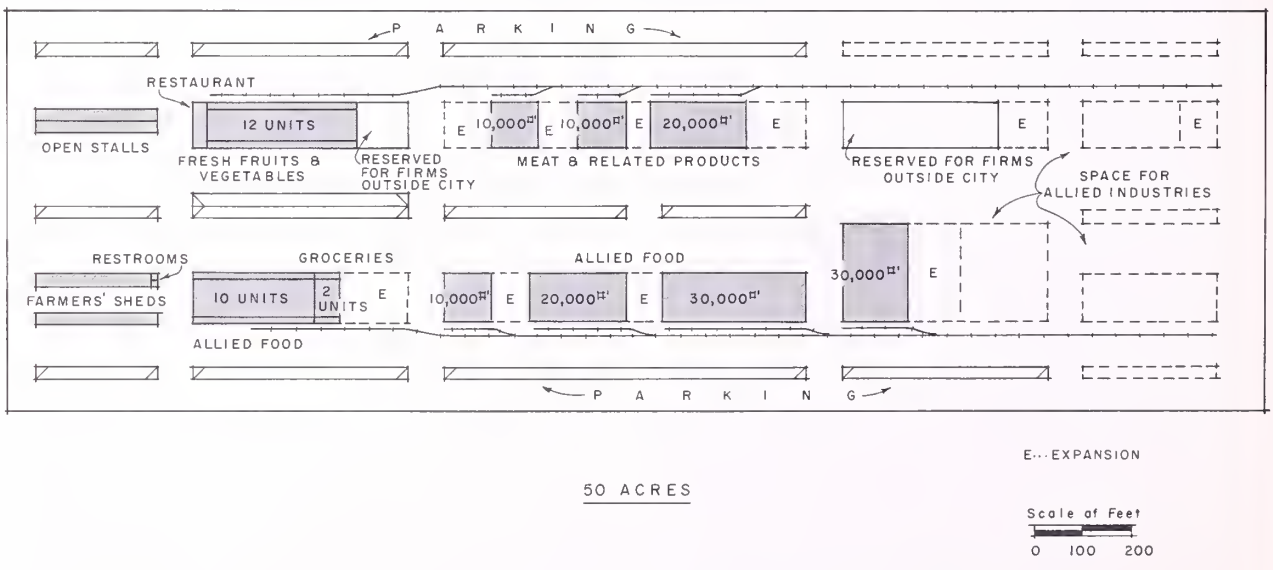


FIGURE 6.—Master plan for the arrangement of the facilities proposed for Montgomery, Ala.

An arrangement of facilities that would be suitable on all of the possible sites is shown in the master plan, figure 6. This arrangement is intended to serve as a guide for firms that may become tenants in the new market.

Fresh fruit and vegetable firms in one multiple-occupancy building and the farmers' section are near the main entry to the market. This location will reduce the traffic moving past other food facilities. The other multiple-occupancy building is placed across the street from the fresh fruit and vegetable building.

The allied food section may be developed at the same time as the basic food group. However, land allocated for firms outside the city could be held by the developer until these firms are ready to locate in Montgomery.

## Selecting a Site

Potential sites were suggested by the wholesalers, the city government, railroads serving the area, and others interested in improving food distribution in Montgomery. All suggested locations were examined and each site was analyzed. Sites are well distributed throughout the Montgomery area, but most are outside the city limits. Most of the sites are near present or proposed highways, and all are served by rail or are near rail lines. The asking price per acre ranges between $2,500 and $6,000. Improved land is available at $4,500 an acre.

Ten of these sites are presented in the following section, but not all are covered in detail. The five sites outlined in the text are (1) Bowman, (2) Britton-Moore, (3) Catoma Park, (4) Haardt, and (5) H. & R. Point. Other sites considered are (6) Brewbaker, (7) Hall's Dairy, (8) Gulf, Mobile, and Ohio, (9) Kilby, and (10) Todd Farm. The order in which the sites are presented does not indicate a preference of one site over another.

The sites covered in this report are shown in figure 7 and summarized in table 9. Other sites are available and can be examined and evaluated if sufficient interest is shown. None of the sites fulfill all requirements. Each site was considered in relation to the following points: Adequate land at reasonable cost, convenient shape, suitable foundation conditions, reasonable proximity to area served and to present and proposed highways, access to rail, zoning restrictions, and future urban development plans.

### The Bowman Site

The Bowman property (site 1) is located in north Montgomery. The approximate boundaries are: On the north, Sixth Street; on the south, the corner of Parallel and Furnace Streets; on the west, the L. & N. Railroad; and on the east, Furnace Street. Parallel Street runs through the site. Additional acreage would be available between Sixth and Eighth Streets. The site is level, but contains some structures. The Northern Expressway will be constructed just south of the site; therefore, good access to arterial highways would be assured. The property is approximately 1½ miles from the State Capitol Building. All utilities are available and the property is zoned for general industrial use. Fifty-two acres are available.

### Britton-Moore Site

The Britton-Moore property (site 2), containing 101 acres, is west of Montgomery and adjacent to the Gulf, Mobile, and Ohio Railroad site. The site is outside the city limits, but within the police jurisdiction of Montgomery. It is bounded on the north and south by commercial property, on the west by woodland, and on the east by U.S. 31 and West Boulevard. The site would require some grading and filling. The location on a main expressway would give good access to arterial highways. The area is zoned for general industrial use. Electricity and gas are available. The site is approximately 4 miles from the State Capitol Building.

### The Catoma Industrial Park Site

The Catoma Industrial Park (site 3) is southwest of Montgomery, approximately 2 miles from the city limits, but within the city's police jurisdiction. The site is bounded on the north by Catoma Creek, on the south by U.S. Highway 80, on the west by Newcomb Avenue, and on the east by the L. & N. Railroad. The area is level and in condition to build. The site fronts on U.S. Highway 80, and access to arterial highways is good. Public utilities are available, including sewer lines. The property is zoned general industrial and is owned by one corporation. The site is near several new facilities for the handling of food. This site is approximately 4.5 miles from the State Capitol Building. There are approximately 300 acres of land in this site.

### The Haardt Site

The Haardt property (site 4) is just west of Montgomery, approximately 4 miles from the State Capitol Building. It is bounded on the north by land zoned general industrial, on the south by U.S. 31, on the west by land zoned light industrial, and on the east by the L. & N. Railroad. There is good access to arterial highways. The area is slightly rolling and would require some grade and fill. All public utilities are available. The property is zoned general industrial and is owned by one company. Between 70 and 100 acres of land are available at this site.

### H. & R. Point Site

The H. & R. Point (site 5) was formerly used by the military for receiving, holding, and reconsigning supplies and equipment. Most of this area

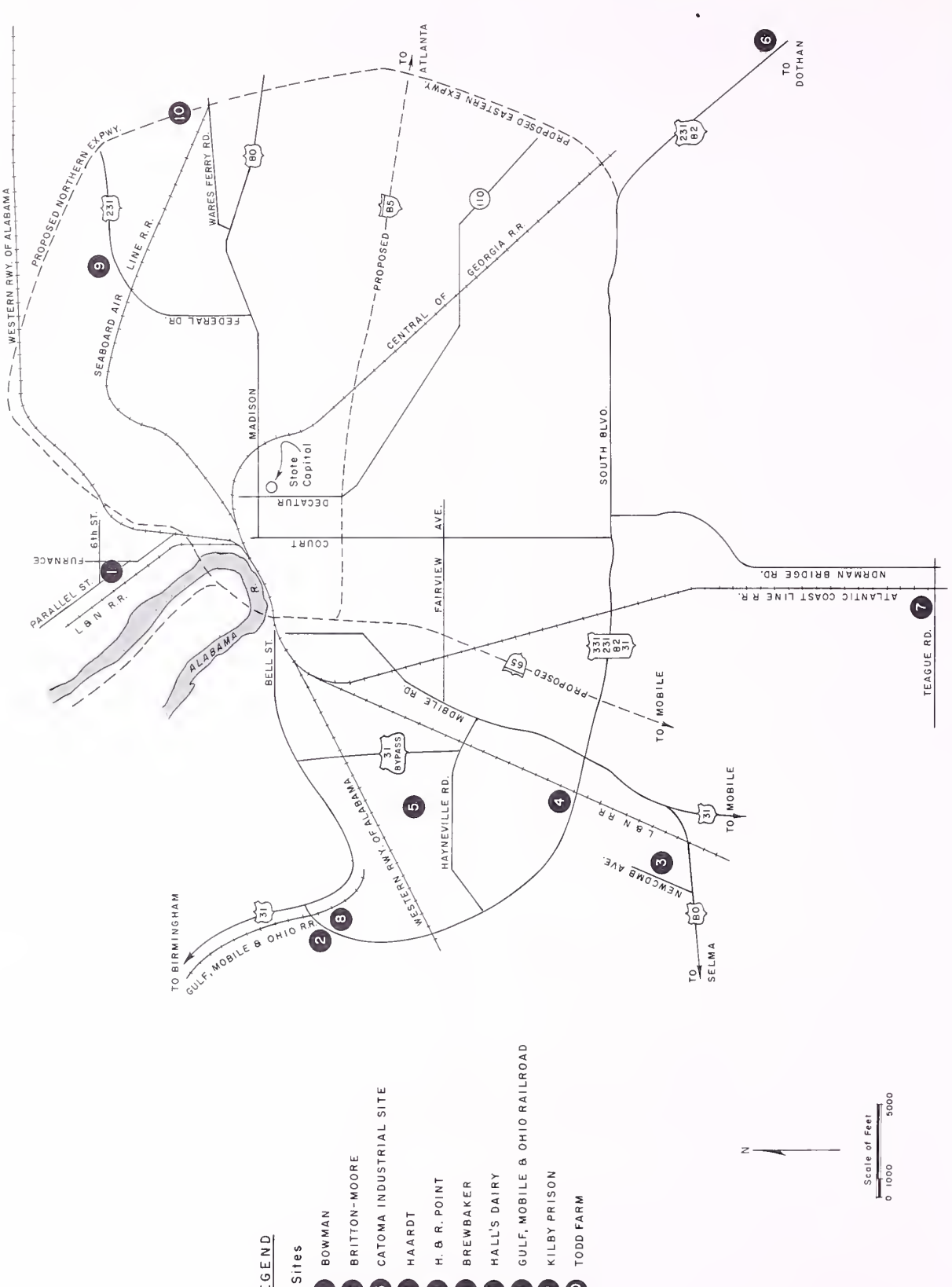


FIGURE 7.—Ten potential sites for the proposed wholesale food distribution facilities for Montgomery.

TABLE 9.—*Summary of 10 possible sites for proposed wholesale food facilities in Montgomery, Ala.*

| Site and number | Boundaries | Available acreage | Available utilities | Topography, soil conditions, etc. | Access to rail transportation | Access to highways | Zoning | Distance from State Capitol (miles) |
|---|---|---|---|---|---|---|---|---|
| 1. Bowman site | North, Sixth St.; south, corner of Parallel and Furnace Sts.; east, Furnace St.; west, L. & N. RR. | 52 | All public utilities | Level but contains some structures. | Adjacent to L. & N. RR. | Located on Parallel St.; proposed Northern Expressway would be just south of site. | General industry | 1.5 |
| 2. Britton-Moore site | North, commerical property; south, commercial property; west, woodland; east, West Blvd. | 101 | Electricity and gas | Slightly rolling; would require some grade and fill. | Access to G., M. and O. RR. could be made available. | Located on West Blvd. | do | 4.0 |
| 3. Catoma Industrial Park site. | North, Catoma Creek; south, U.S. Highway 80; west, Newcomb Ave.; east, L. & N. RR. | Approximately 300 | All public utilities | Level and in condition to build. | Served by L. & N. RR. | Direct access to U.S. 80. | do | 4.5 |
| 4. Haardt site | North, industrial property; south, U.S. 31; west, industrial property; east, L. & N. RR. | 70 to 100 | do | Slightly rolling; would require some grade and fill. | Adjacent to L. & N. RR. | Adjacent to U.S. 31 | Light industry | 4.0 |
| 5. H. & R. Point site | North, Western Ry. of Alabama; south, Hayneville Road; west, West Blvd.; east, L. & N. RR. | In excess of 900 | Water, gas, and electricity. Sanitary sewers not available; septic tanks required. | Level; no fill required; subsoil conditions good. | Served by Western Railway of Ala. and the L. & N. RR. | Direct access to U.S. 31 Bypass and access West Blvd. by Hayneville Road. | General industry | 2.5 |
| 6. Brewbaker site | North, farmland; south, farmland; east, farmland; west, U.S. Highway 231-82. | In excess of 200 | Electricity only | Level to slightly rolling; would require some grade and fill. | Access to Central of Georgia RR. | Located on U.S. Highway 231-82. | do | 7.0 |
| 7. Hall's Dairy site | North, farmland; south, Teague Road; west, farmland; east, Atlantic Coast Line RR. | Approximately 125 | do | do | Served by Atlantic Coast Line. | Approximately 3.5 miles from South Blvd. | Light industry | 6.5 |
| 8. Gulf, Mobile, and Ohio Railroad site. | North, U.S. 31; south, farmland; west, West Blvd.; east, G., M. and O. RR. | Approximately 190 | do | do | Served by G., M. and O. RR. | Located on West Blvd. | General industry | 4.0 |
| 9. Kilby Prison site | Undetermined | Total land area undetermined. | All public utilities except sewers. | Level to rolling; would require some grade and fill. | Access to Western Railway of Ala.; and Seaboard Airline RR. could be made available. | Located on U.S. 231 and adjacent to proposed Northern Expressway. | Institutional. (Subject to change.) | 3.5 |
| 10. Todd Farm site | North, farmland; south, Wares Ferry Rd. and Seaboard Airline RR.; east, farmland; west, farmland. | Approximately 120 | Electricity only | Uneven; would require considerable grade and fill. | Adjacent to Seaboard Airline Railroad. | Direct access to new Eastern Expressway. | Planned commercial | 5.0 |

was declared surplus by the military and released for private development.

This site is in the western section of Montgomery, approximately 2.5 miles from the State Capitol Building. It is bounded on the north by the Western Railway of Alabama, on the south by the Hayneville Road, on the west by West Boulevard, and on the east by the L. & N. Railroad. The area is level, and subsoil conditions are good. Access to arterial highways is good.

Public utilities are available. Sanitary sewers are not available, and septic tanks would have to be used. The property is zoned general industrial, and the site is owned by one corporation. The area contains several large warehouses used by various types of wholesalers and storage companies. The site contains more than 900 acres.

### Other Sites Considered

The sites previously outlined represent areas that could be developed into a food center. Other areas are available and merit consideration because of adequate land area or location.

## Estimated Investment in Land and Facilities

Land and facilities are the two basic cost components of constructing a wholesale food distribution center. Most of the difference between cost of construction on the sites previously presented would be the variation in real estate values and the cost of putting the land in condition to build. *The costs cited are intended as guides and should not be substituted for firm proposals by contractors or architects.* The total investment cost is used as the basis for estimating the cost of debt service, taxes, and insurance found later in the report.

### Land

The land value at $4,500 per acre, based on the Catoma Industrial Park site, is considered representative for land in condition to build in the Montgomery area. Land value for this site was obtained from the present owners. However, land costs will depend on the site selected and sale conditions. The range of land values presented previously was obtained from estimates by owners or assessed valuation by the city of Montgomery. Land costs in outlying areas will generally be lower than in the more densely populated sections or where there is considerable commercial development.

### Facilities

The costs of facilities are estimated from construction indexes for Alabama in late 1964, costs of similar facilities recently constructed, and engineers' and architects' estimates.

Detailed building cost estimates are for the basic structure and assume "light mill" type of construction. Tenants will finish the offices, install refrigeration, and take care of other requirements that depend upon individual needs and preferences.

Estimated cost of paved surfaces for each food group includes the group's allocated share of streets within the wholesale food distribution center. A similar system is used to allocate the cost of sewers (sanitary and storm), lead-in railroad tracks, and public parking. House tracks and floodlights are charged to the user. Major highways in the vicinity of the market are not charged to the market as their cost is borne by the State and local governments.

The following tabulations show the estimated cost of buildings, architect's fee, construction loan, contingency fund, and land for each food group:

*Fresh Fruits and Vegetables*

| | |
|---|---|
| Buildings: | |
| 13 units in 1 multiple-occupancy building—2,875 sq. ft. per unit—@ $19,125 per unit ($7.41 per sq. ft. for 2,500 sq. ft. at platform level plus $1.60 per sq. ft. for 375 sq. ft. of mezzanine) (1 unit is for restaurant, which requires an additional $2,500 for plumbing and public restrooms) | $251,125 |
| 2 farmers' sheds with 2 public restrooms @ $500 each and 10,000 sq. ft. @ $2.50 per sq. ft | 26,000 |
| Other facilities: | |
| 14 floodlights @ $150 each | 2,100 |
| Paving—blacktop combination—39,438 sq. yd. @ $3.50 per sq. yd | 138,033 |
| Sewers: | |
| 977 ft. of 12 in. sanitary @ $2.25 per linear ft | 2,198 |
| 1,954 ft. of 15 in. storm @ $3.50 per linear ft | 6,839 |
| Tracks (house tracks and allocated lead-in): 550 ft. @ $10 per linear ft | 5,500 |
| Cost of buildings and other facilities | 431,795 |
| Other costs: | |
| Architect's fee—6 percent of construction costs | 25,908 |
| Costs of construction, including architect's fee | 457,703 |
| Construction loan—5 percent of construction costs and architect's fee | 22,885 |
| Costs of construction, architect's fee, and construction loan | 480,588 |
| Contingency—10 percent of construction costs, architect's fee, and construction loan | 48,059 |
| Total cost of buildings and other facilities, and associated costs | 528,647 |
| Cost of 9.48 acres of land @ $4,500 per acre | 42,660 |
| Total investment | 571,307 |

*Meat and Related Products*

| | |
|---|---|
| Buildings: | |
| 3 individual-occupancy buildings—40,000 sq. ft. of first floor area @ $7.65 per sq. ft | 306,000 |
| Other facilities: | |
| 12 floodlights @ $150 each | 1,800 |
| Paving—blacktop combination—27,081 sq. yd. @ $3.50 per sq. yd | 94,784 |

*Meat and Related Products—Continued*

| | |
|---|---|
| Other facilities—Continued | |
| Sewers: | |
| 725 ft. 12 in. sanitary @ $2.25 per linear ft | $1, 631 |
| 1,450 ft. 15 in. storm @ $3.50 per linear ft | 5, 075 |
| Switches (railroad): 3 @ $3,500 | 10, 500 |
| Tracks (house tracks and allocated lead-in): 1,280 ft. @ $10 per linear ft | 12, 800 |
| Cost of buildings and other facilities | 432, 590 |
| Other costs: | |
| Architect's fee—6 percent of construction costs | 25, 955 |
| Costs of construction, including architect's fee | 458, 545 |
| Construction loan—5 percent of construction costs and architect's fee | 22, 927 |
| Costs of construction, architect's fee, and construction loan | 481, 472 |
| Contingency—10 percent of construction costs, architect's fee, and construction loan | 48, 147 |
| Total cost of buildings and other facilities, and associated costs | 529, 619 |
| Cost of 7.03 acres @ $4,500 per acre | 31, 635 |
| Total investment | 561, 254 |

*Groceries*

| | |
|---|---|
| Buildings: | |
| 2 units in multiple-occupancy building in allied food section—2,875 sq. ft. per unit—@ $19,125 per unit ($7.41 per sq. ft. for 2,500 sq. ft. at platform level plus $1.60 per sq. ft. for 375 sq. ft. of mezzanine) | 38, 250 |
| 1 single-occupancy building—30,000 sq. ft. @ $7.65 | 229, 500 |
| Other facilities: | |
| 10 floodlights @ $150 each | 1, 500 |
| Paving—blacktop combination—14,518 sq. yd. @ $3.50 per sq. yd | 50, 813 |
| Sewers: | |
| 440 ft. of 12-in. @ $2.25 per linear ft | 990 |
| 881 ft. of 15-in. @ $3.50 per linear ft | 3, 084 |
| Switches (railroad): 1 @ $3,500 | 3, 500 |
| Tracks (house tracks and allocated lead-in): 850 ft. @ $10 per linear ft | 8, 500 |
| Cost of buildings and other facilities | 336, 137 |
| Other costs: | |
| Architect's fee—6 percent of construction costs | 20, 168 |
| Costs of construction, including architect's fee | 356, 305 |
| Construction loan—5 percent of construction costs and architect's fee | 17, 815 |
| Costs of construction, architect's fee, and construction loan | 374, 120 |
| Contingency—10 percent of construction costs, architect's fee, and construction loan | 37, 412 |
| Total cost of buildings and other facilities, and associated costs | 411, 532 |
| Cost of 4.27 acres of land @ $4,500 per acre | 19, 215 |
| Total investment | 430, 747 |

*Allied Food*

| | |
|---|---|
| Buildings: | |
| 10 units in 1 multiple-occupancy building—2,875 sq. ft. per unit—@ $19,125 per unit ($7.41 per sq. ft. for 2,500 sq. ft. at platform level plus $1.60 per sq. ft. for 375 sq. ft. of mezzanine) | $191, 250 |
| 3 single-occupancy buildings—60,000 sq. ft. of first floor area @ $7.65 per sq. ft | 459, 000 |
| Other facilities: | |
| 20 floodlights @ $150 | 3, 000 |
| Paving—blacktop combination—58,744 sq. yd. @ $3.50 per sq. yd | 205, 604 |
| Sewers: | |
| 1,558 of 12-in. sanitary @ $2.25 per linear ft | 3, 506 |
| 3,115 of 15-in. storm @ $3.50 per linear ft | 10, 903 |
| Switches (railroad): 3 @ $3,500 | 10, 500 |
| Tracks (house tracks and associated lead-in): 1,730 ft. @ $10 per linear ft | 17, 300 |
| Cost of buildings and other facilities | 901, 063 |
| Other costs: | |
| Architect's fee—6 percent of construction costs | 54, 064 |
| Costs of construction including architect's fee | 955, 127 |
| Construction loan—5 percent of construction costs and architect's fee | 47, 756 |
| Costs of construction, architect's fee, and construction loan | 1, 002, 883 |
| Contingency—10 percent of construction costs, architect's fee, and construction loan | 100, 288 |
| Total cost of buildings and other facilities, and associated costs | 1, 103, 171 |
| Cost of 15.11 acres of land @ $4,500 per acre | 67, 995 |
| Total investment | 1, 171, 166 |
| GRAND TOTAL, investment in project | 2, 734, 474 |

## Ownership and Management of New Facilities

There are several ways in which new wholesale food distribution facilities may be financed. Some of the more common means are (1) private corporations, (2) public benefit corporations, (3) direct public ownership, or (4) a combination.[3]

### *Private Corporation*

A private corporation usually is organized for profit, but it may be operated as a nonprofit organization. To form a private corporation, the incorporators usually obtain a charter from the State. This charter defines the power of the corporation and its officers and directors. It also specifies what the stockholders' rights shall be and how they shall exercise control.

[3] For a more detailed discussion of these methods, see CLOWES, HARRY G., ELLIOTT, W. H., and CROW, W. C. WHOLESALE FOOD MARKET FACILITIES—TYPES OF OWNERSHIP AND METHODS OF FINANCING. U.S. Dept. Agr. Mktg. Res. Rpt. No. 160. 96 pp. illus. 1957.

When a private corporation is operated for profit, there are usually no restrictions on the sale of voting stock to any individual because of his occupation or profession or on the number of shares of voting stock that may be held by any one individual. Stockholders normally have one vote in corporate affairs for each share of voting stock held.

A major advantage of a private corporation is the ability of the board of directors to make decisions quickly and without the delay found in other types of organizations. Quick decisions on major policy matters sometimes make the difference between success and failure of an organization. In addition, when the period of amortization expires, the entire investment belongs to the stockholders; tenancy changes have no effect upon stock ownership; and transfer of stock is unrestricted. The major problem of corporate ownership is that a substantial financial equity is necessary.

When a private corporation is operated on a nonprofit basis, the sale of shares of voting stock usually is restricted. A nonprofit market corporation probably would restrict the sale of stock to farmers, truckers, wholesalers, and others directly concerned with the operation of the market and would base the amount of stock sold to one individual or firm on the amount of facilities used. In some cases, eligible purchasers of voting stock would also be required to purchase a specified number of shares of nonvoting stock. Through these restrictions on stock sales, the number of stockholders' votes and the voice in management exercised by any one shareholder are limited. Under the laws in some States, nonprofit corporations are referred to as cooperative corporations or societies.

A number of wholesale markets are owned and operated by private corporations. In some of these corporations, the principal stockholders are food wholesalers. In others, the corporation may be a railroad company or some other company primarily organized for another type of business.

### Public Benefit Corporation

Public authorities created by State or local governments to construct and operate market facilities are usually organized as public benefit corporations.

A public benefit corporation is a nonprofit agency. As such, rentals and other charges do not exceed the amount needed to pay the costs of operation, amortize the original investment, and maintain a limited reserve for contingencies. Since under public ownership the revenues would be considered public funds, the reserve fund could not be paid to lessees as dividends. However, there is the possibility that reserve funds might be appropriated for other public uses while bonds remained outstanding, unless reserves are specifically committed to redemption of bonds.

Public benefit corporations usually have the power of eminent domain, which can be useful in the acquisition of a site. Such corporations usually finance market improvements through the sale of revenue bonds. This type of financing normally is not a full obligation of a State or a political subdivision. Since these revenue bonds are often tax exempt, the interest cost is lower. A public agency, such as a market authority, is more likely than private ownership to provide for future expansion and to work toward a complete wholesale food distribution center. A market authority may or may not be required to pay taxes to the community in which it is located.

Market authorities also have certain limitations, especially in the financing and management of the facilities. They may find it difficult to raise funds through revenue bonds unless considerable equity funds are provided in some way or the bonds are guaranteed by the city, county, or State. Some State or city governments have appropriated part of the funds needed for land acquisition and original construction. The continuity of management may depend on the continuance of a State or municipal government administration in office. As a whole, market authorities do not have as complete freedom of operation as is possible under private ownership.

### Direct Public Ownership

A number of wholesale food market facilities have been financed, constructed, and operated by States, counties, or municipalities. Several States and municipalities have enabling legislation covering the improvement or establishment of produce markets.

Direct State ownership and operation usually can be differentiated from ownership and operation by a State market authority by the methods of financing used and the delegations of authority made by the State legislature. Although a number of States have appropriated funds and otherwise assisted market authorities with financial problems, they do not usually underwrite the total cost of a market constructed by an authority, nor have the States always assumed responsibility for the operation of these markets. Direct State ownership depends on the market facility's being financed in whole or in part by an appropriation of State funds. If the financing is not entirely by this method, the State usually is obligated for the remainder unless this balance is obtained through grants or donations. Also, the State is responsible for maintenance and other expenses involved in the operation of a State-owned market.

Municipal ownership of a wholesale food market is comparable in many of its basic aspects to direct State ownership. Some municipalities are authorized in their charters to construct and operate food markets. Some city councils or commissions are not authorized to appropriate from general funds in the city treasury for the construction of market facilities on a basis comparable to that of a State legislative body. Three methods

are usually open to municipalities for financing a market program: (1) Issuance of municipal bonds, (2) issuance of revenue warrants, and (3) loans from public corporations. In most cities the issuance of bonds for such purposes must be approved by a majority of the qualified electorate voting in a referendum. States may finance, construct, and operate wholesale food market facilities because legislative bodies feel that improved facilities, in themselves, will serve the public interest. Facilities constructed with municipal or county funds would necessarily be owned by the county or municipality, and rent would have to be paid by the tenants indefinitely.

### Farmer Cooperatives

A farmer cooperative operates for the mutual benefit of its members or stockholders as producers or patrons. It is usually incorporated, owned, and controlled by member agricultural producers. The association is operated on a cost basis, after allowing for the expenses of operation and maintenance, any other authorized deductions for expansion, and a necessary reserve. In a cooperative, the financial benefits accrue to its clients, whereas in a commercial enterprise such benefits accrue to those who have invested their money in the business and have bought stock. In the marketing of farm and food products and the purchasing of supplies, cooperatives usually own and operate such facilities as they deem necessary.

Agricultural cooperatives, which comply with rather rigid requirements, are accorded special treatment under the Federal income tax laws. In some States, farmer cooperatives are exempt from payment of State income tax; however, cooperatives pay property taxes and other taxes paid by businesses, as required by law.

### Combinations

Wholesale food distribution centers have been established by combining two or more of the types of ownership and operations previously described. For example, in Philadelphia a food distribution center has been developed by a nonprofit corporation on land owned and put in condition for building by the city.

## Methods of Financing

It would be possible to use two or more methods of financing new food distribution facilities in Montgomery. The entire project could be constructed and operated by a single group or agency, or various parts could be constructed and operated by different groups or agencies. To illustrate:

1. Food wholesalers could form a corporation and lease or purchase land and build facilities.
2. The city or State could purchase the land and put it in condition to build, then lease it to tenants.
3. The city or State could build the multiple-occupancy buildings and lease them to tenants; however, it is understood that special enabling legislation would be required.
4. The farmers' market might be built by a cooperative association.

### Sources of Capital

*State or local government.*—There are favorable sources of capital to finance new food distribution facilities in Montgomery. The State of Alabama is actively encouraging industrial and commercial development.[4] This activity includes considerable interest in a more diversified agriculture and the development of industries related to agriculture.

The Wallace and Cater acts give a municipal government or its designated agent the authority to finance a project by issuing revenue bonds. These acts permit the financing of both plant and equipment. Rents paid during the maturity period of the bonds need only cover amortization and interest. Bonds may be issued with maturity periods of 10 to 30 years. Once the bond issue is retired the plant may be rented for as little as $1 per year for the next 99 years. The plant may be purchased outright after the bonds are redeemed; however, as long as the property is held by the municipality or its agent corporation, no real property taxes are paid.

The market could possibly be capitalized under the Wallace act, which authorizes financing the construction and equipping of industrial or business projects.

Within the meaning of the Wallace act, "a project includes any land and buildings or other improvements, and all real and personal property necessary, whether or not it is now existing, which is suitable for the following types of enterprise."

1. Manufacturing, processing, or assembling agricultural or manufactured products.
2. Commercial enterprises for storing, warehousing, distributing, or selling products of agriculture, mining, or industry, except public utilities.
3. Any enterprise for research in connection with any of the foregoing.

The municipal governing body is itself the sole agent, and enters in contracts with prospective lessees, finances projects, constructs or equips buildings, or both, and as indentured trustee, collects rents and disburses payments to bondholders.

Special enabling legislation might be necessary to adapt the act to cover the method or methods of financing this project.

Both the Cater act and the Wallace act were intended to promote industry and trade in Alabama. Both authorize the financing and acquisition of industrial and commercial projects. Both acts have been held as constitutional by the State supreme court.

Financing the project under the Wallace or Cater acts would be through issuance of revenue

[4] Alabama State Planning and Industrial Development Board. alabama's financing plans. 6 pp., illus. Montgomery, Ala.

bonds by the city or its incorporated agent.

It is assumed that the interest rate would be 3½ percent, the debt would be amortized over a 25-year period, and any income exceeding current expenses would be held as a reserve fund.

*Private financing.*—The three major sources of capital, provided private financing is used, are first mortgage bonds, second mortgage bonds or preferred stock, and equity capital.

Sixty-five percent might be obtained on a first mortgage and 20 to 25 percent on a second mortgage or by issuance of preferred stock; the remainder (10 to 15 percent) would be required as equity capital.

A rate of 6 percent and an amortization period of 25 years are assumed. This rate would be a composite of the various rates charged for capital from each of these sources. If the first mortgage were obtained at 5½ percent and the second for 6 percent and the equity capital had a value of 7 percent, the average rate of interest would be approximately 6 percent.

If bonds were issued, purchasers of the bonds might demand that current income exceed expenses by some stipulated amount for a reserve fund. Amounts required would vary according to the tightness of the money market, the financial rating of the bond issues, and the value of collateral.

## Revenue Required and Source of Revenue

Revenue required could vary according to the methods used to finance the development. For example, building a project under the auspices of the Wallace or Cater acts would not only reduce interest costs, but could materially affect the amortization period. If a corporation with substantial assets were constructing its own facilities, it obviously could expect better financing arrangements than one with limited assets. It is not feasible in this report to illustrate all possibilities.

If new facilities are built as suggested, they might follow the general layout in figure 6. It was assumed that the project would be constructed by a single group or agency and leased to the occupants. *Such assumptions are not intended to suggest the most desirable arrangements, nor are they intended to exclude other arrangements; they are presented so that some estimate of probable operating expenses may be included in this report.*

The revenue requirements for a privately developed center will be considered under four categories: (1) Costs of management, (2) insurance, maintenance, and repairs, (3) taxes on real estate, and (4) debt services. Each of these requirements will be discussed on the following pages.

*Cost of management.*—The management and maintenance expenses are based on annual reports of other wholesale markets and estimates of such cost in Montgomery. These costs are prorated among the firms on the basis of buildings, other facilities, and associated costs.

It is assumed that initial promotional costs would be borne by the developer, transportation agencies, appropriate city and State agencies, or other governmental bodies. Certain other administrative costs inherent in successful operations must be included and are listed in the tabulation that follows.

*Management Expenses*

| | |
|---|---|
| Manager | $8,000 |
| Secretary-clerk | 3,500 |
| Auditing and legal service | 1,000 |
| Office rental allowance | 900 |
| Advertising and promotion | 500 |
| Office supplies and equipment | 500 |
| Telephone and other communications | 600 |
| Utilities | 2,000 |
| General market sanitation | 4,500 |
| Contingency | 1,500 |
| Total | 23,000 |

Management expenses may be adjusted, depending upon the services desired by the tenants of the center.

Sanitation expense is based on probable costs in Montgomery and comparative estimates in other cities. This item would not be necessary if the city would provide municipal sanitation services.

*Insurance, maintenance, and repairs.*—Insurance underwriters in the city provided the basis for the estimates of fire, extended coverage, and liability insurance.

The liability insurance rate for a building occupied as a wholesale store for limits of $300,000 per accident was computed on the basis of $0.24 per 100 square feet. This is a current stock insurance company rate.

Fire and extended coverage insurance was computed at $0.55 per $100 based on 80 percent of the combustible facility costs. The total cost for liability, fire, and extended coverage insurance was estimated at $8,800.

There are means of reducing the overall insurance costs, such as insuring for a 5-year term with premiums payable annually. This is a customary procedure. The average annual costs on this basis could be reduced from those quoted, but they are subject to negotiations.

Maintenance and repairs were assumed to be one-half of 1 percent of cost of facilities and associated costs. The rate was applied to all buildings and facilities. To provide a reserve for increases in these costs, a 10-percent contingency is included. A summary of annual costs of management and upkeep, insurance, and maintenance and repairs, including a contingency fund, appears in table 10.

*Real estate taxes.*—It has been assumed that the wholesale food distribution center would pay taxes on land, buildings, or other taxable facilities. Computations were based upon the 1964 assessed valuation of 60 percent of the estimated investment in land and facilities. The city tax rate is $12.50 per $1,000 of assessed valuation. Estimated

TABLE 10.—*Estimated annual income required for management and upkeep in the proposed wholesale food facilities, Montgomery, Ala., 1964*

| Type of wholesaler | Management expense | Fire, extended coverage, and liability insurance [1] | Maintenance and repairs [2] | Reserve or contingency fund [3] | Total |
|---|---|---|---|---|---|
| Basic food group: | | | | | |
| Fresh fruits and vegetables [4] | $4, 278 | $1, 524 | $2, 458 | $826 | $9, 086 |
| Farmers' stalls | 322 | 115 | 185 | 62 | 684 |
| Meat and related products | 4, 830 | 1, 791 | 2, 648 | 927 | 10, 196 |
| Groceries | 3, 910 | 1, 568 | 2, 058 | 754 | 8, 290 |
| Allied food group | 9, 660 | 3, 806 | 5, 516 | 1, 898 | 20, 880 |
| Total | 23, 000 | 8, 804 | 12, 865 | 4, 467 | 49, 136 |

[1] Based on information supplied by insurance consultants in Montgomery; subject to change upon negotiation.
[2] One-half of 1 percent of facilities and associated costs.
[3] 10 percent of preceding items.
[4] Includes restaurant.

market value is assumed to be the same as the investment cost. The tax rate information was provided by the city of Montgomery. A 10-percent contingency fund has been included to provide for possible increases in the current tax rate. It is possible that this contingency fund could be discontinued when a full year's tax payment has been accrued. The total tax payment for the center is estimated at $20,500 (table 11). The reserve would amount to $2,050. All taxes on real property may be discounted if the project is financed through the Wallace or Cater acts.

*Debt service.*—The proportion of the total that might be borrowed on a mortgage loan and the terms of the loan would depend upon the availability of money and interest rates at the time. Since the design of the facilities recommended is by intent multipurpose, the facilities can easily be converted to meet the needs of many industries. Facilities of this type should not become obsolete nor fully depreciated in less than 20 to 30 years and should have a useful life for a much longer period.

The reserve or contingency fund should amount to 10 percent of the annual costs regardless of the type of financing. After a full year's amortization has been accrued, it may be possible to discontinue such a fund. For the purposes of this report, the 10-percent reserve, or contingency allowance, has been included.

A financial plan must be established before the terms of a loan can be worked out. The estimated annual income required for debt service to amortize the cost of the project is shown in table 12.

*Total annual revenue required.*—Estimates of the amount of revenue needed under private

TABLE 11.—*Estimated real estate taxes to be paid in the proposed wholesale food facilities, Montgomery, Ala., 1964*

| Type of wholesaler | Assessed value [1] | Income required for real estate taxes | | |
|---|---|---|---|---|
| | | Tax [2] | Reserve [3] | Total |
| Basic food group: | | | | |
| Fresh fruits and vegetables | $318, 058 | $3, 976 | $398 | $4, 374 |
| Farmers' stalls | 24, 726 | 309 | 31 | 340 |
| Meat and related products | 336, 752 | 4, 209 | 421 | 4, 630 |
| Groceries | 258, 448 | 3, 231 | 323 | 3, 554 |
| Allied food group | 702, 700 | 8, 784 | 878 | 9, 662 |
| Total | 1, 640, 684 | 20, 509 | 2, 051 | 22, 560 |

[1] Based on 60 percent of construction and land costs.
[2] Based on $12.50 per $1,000.
[3] 10 percent of tax.

TABLE 12.—*Estimated annual income required for debt service in the proposed wholesale food facilities, Montgomery, Ala., 1964*

| Type of wholesaler | Investment in land and facilities | Amortization charge [1] | Reserve or contingency fund [2] | Total |
|---|---|---|---|---|
| Basic food group: | | | | |
| Fresh fruits and vegetables | $530, 097 | $41, 469 | $4, 147 | $45, 616 |
| Farmers' stalls | 41, 210 | 3, 224 | 322 | 3, 546 |
| Meat and related products | 561, 254 | 43, 907 | 4, 391 | 48, 298 |
| Groceries | 430, 747 | 33, 697 | 3, 370 | 37, 067 |
| Total | 1, 563, 308 | 122, 297 | 12, 230 | 134, 527 |
| Allied food group | 1, 171, 166 | 91, 620 | 9, 162 | 100, 782 |
| Grand total | 2, 734, 474 | 213, 917 | 21, 392 | 235, 309 |

[1] 6-percent annual interest rate for 25 years.
[2] Computed at 10 percent of amortization charge.

financing for costs of management and upkeep, taxes, and debt service, are as follows:

| | |
|---|---|
| Basic food group: | |
| Fresh fruits and vegetables | $59,076 |
| Farmers' stalls | 4,570 |
| Meat and related products | 63,124 |
| Groceries | 48,911 |
| Allied food group | 131,324 |
| Total [1] | 307,005 |

[1] The cost of operations of individual businesses is not included.

Should food firms other than those planned for in this report locate on the market, it would be possible to reduce costs to individual firms. Special tax concessions or the use of municipal services would also reduce total income required to operate the market.

*Source of revenue.*—It is assumed that the revenue required, regardless of financing, will be derived from facility rentals. In these estimates, the restaurant rental was computed as a percentage of the total revenue required; thus, the restaurant would pay its fair share in the overall development. An alternative might be to set a fee on gross income of the restaurant and other service-type businesses operating in the market. Minor sources of income, such as vending machines or public telephones, have not been included.

Rental charges are based on the total computed cost, including the farmers' market. An annual rental of $307,000 would be required under private financing and $231,600 by financing under the Wallace or Cater act. The cost of streets in the market, paved parking, and other items have been prorated among the dealers. Sewers and paving for the farmers' market, along with architect's fee and other costs, have been prorated among the fresh fruit and vegetable wholesalers. The rentals presented in table 13 will adequately cover costs and reserves.

In some markets, certain operating costs have been reduced when governmental agencies assumed the responsibility for sanitation, utilities companies installed services to individual stores, or the railroads provided lead-in trackage. If similar agencies in Montgomery supply these services, costs can be reduced.

TABLE 13.—*Estimated rentals required in the proposed wholesale food facilities, Montgomery, Ala., 1964*

| Type of wholesaler | Space planned, including mezzanine | Annual rentals required | |
|---|---|---|---|
| | | Total | Per square foot |
| Basic food group: | | | |
| Fresh fruits and vegetables [1] | *Square feet* 37,375 | *Dollars* 59,076 | *Dollars* 1.58 |
| Meat and related products | 40,000 | 63,124 | 1.58 |
| Groceries | 35,750 | 48,911 | 1.37 |
| Allied food group | 88,750 | 131,324 | 1.48 |
| Total | 201,875 | 302,435 | 1.50 |
| Farmers' stalls | 10,000 | 4,570 | .46 |
| Grand total | 211,875 | 307,005 | 1.45 |

[1] Includes restaurant, but does not include farmers' stalls because they are used seasonally.

## Benefits and Savings From Improved Facilities

### Measurable Cost Reductions

Nineteen firms have been included in food center plans. The selected measurable costs estimated in new facilities for firms in the basic food group are as follows: (1) Handling and interdealer transfers, (2) spoilage, deterioration, breakage, and shrinkage, and (3) rentals. These are not the only costs involved, but they reflect the greatest measurable cost change affected by new facility proposals and the areas where greatest savings are to be realized. Although such projections involve elements of probability, these estimates were based upon research by the U.S. Department of Agriculture on operating costs in modern facilities throughout the country. The data were supplemented by comparison of percentage cost reductions realized by wholesalers in other areas who have moved to new facilities. No selected costs were enumerated for the allied food firms because of the diverse nature of their operations.

*Handling and interdealer transfers.*—Savings in handling and interdealer transfers would result from decreasing the cost of moving the product from the first point of arrival in the area into the facility, within the facility, and between firms, and loading it onto outgoing trucks.

The proposed food center would provide direct rail access. This would eliminate any cartage cost now incurred in moving products from team tracks to a firm's store.

The greatest savings would be achieved by increased efficiency in the improved facilities. The one-story buildings would provide both front and rear entrances. Products could be loaded on efficient handling equipment and transported to cooling, storage, or display areas, or could be loaded immediately for transport out of the facility. Even without modern handling equipment, savings would accrue to firms handling small volumes. These firms could use pallets and pallet jacks to improve their operating efficiency.

TABLE 14.—*Estimated annual handling and interdealer transfer costs in present and proposed wholesale food facilities for firms for which space has been provided in the new market, Montgomery, Ala., 1964*

| Type of wholesaler | Total cost | | Cost reduction |
|---|---|---|---|
| | Present | Proposed | |
| Fresh fruits and vegetables | $60, 301 | $31, 552 | $28, 749 |
| Meat and related products | 184, 803 | 111, 499 | 73, 304 |
| Groceries | 30, 276 | 23, 750 | 6, 526 |
| Total | 275, 380 | 166, 801 | 108, 579 |

It is assumed that most products in the proposed facilities would be handled through the firm's store and that the amount of interchange between firms would not be greatly affected. Firms in a new food center could reduce the cost of interdealer handling because of their concentration. Firms in a multiple-occupancy building could exchange products by moving them along a common platform.

The reduction in handling and interdealer transfer costs would be $108,600 (table 14).

*Spoilage, deterioration, breakage, and shrinkage.*—Many firms could reduce spoilage losses by installing adequate refrigeration. Pilferage would be reduced, and, with less handling required, there would be considerable reduction in breakage, bruising, and subsequent spoilage. Cost reduction estimates are based upon the experience of dealers operating modern facilities and research results. Wholesalers would save approximately $45,000, as illustrated in table 15.

TABLE 15.—*Estimated spoilage, deterioration, breakage, and shrinkage in present and proposed wholesale food facilities for firms for which space has been provided in the new market, Montgomery, Ala., 1964*

| Type of wholesaler | Total cost | | Cost reduction |
|---|---|---|---|
| | Present | Proposed | |
| Fresh fruits and vegetables | $38, 155 | $29, 243 | $8, 912 |
| Meat and related products | 64, 008 | 33, 253 | 30, 755 |
| Groceries | 15, 600 | 10, 425 | 5, 175 |
| Total | 117, 763 | 72, 921 | 44, 842 |

*Rents.*—Rents will be higher in proposed facilities for both the basic and allied food groups than they are now. The new market offers improvements and services not now available to food wholesalers in Montgomery. Higher rent is the price that must be paid for new and modern facilities and for improvements in working conditions.

Rental comparisons between old and new facilities indicate an increase of about $186,000 through private financing and $111,000 through Wallace or Cater financing (table 16).

Rentals in new facilities would average $1.50 per square foot under private financing and $1.13 under Wallace-Cater financing.

## Nonmeasurable Benefits

In addition to the measurable benefits of modern food facilities, there are benefits that cannot be easily measured in dollars. These economic and social benefits are shared by the food wholesalers, wholesale buyers, consumers, market employees,

TABLE 16.—*Estimated annual rent in present and proposed wholesale food facilities for firms for which space has been provided in the new market, Montgomery, Ala., 1964*

| Type of wholesaler | Present cost | Proposed cost | | Increase | |
|---|---|---|---|---|---|
| | | Private financing | Wallace-Cater financing | Private financing | Wallace-Cater financing |
| Basic food group: | | | | | |
| Fresh fruits and vegetables [1] | $15, 020 | $59, 076 | $44, 463 | $44, 056 | $29, 443 |
| Meat and related products | 27, 405 | 63, 124 | 47, 652 | 35, 719 | 20, 247 |
| Groceries | 19, 100 | 48, 911 | 37, 036 | 29, 811 | 17, 936 |
| Total | 61, 525 | 171, 111 | 129, 151 | 109, 586 | 67, 626 |
| Allied food group [2] | 55, 220 | 131, 324 | 99, 041 | 76, 104 | 43, 821 |
| Grand total | 116, 745 | 302, 435 | 228, 192 | 185, 690 | 111, 447 |

[1] Does not include the farmers' market.
[2] Based on $0.50 per square foot.

agricultural producers, truckers, and railroads, and the city, county, and State governments.

*To wholesalers.*—The total operating cost of wholesalers could be reduced by the more efficient operating methods possible in a new market. At any of the sites discussed in the report, it is likely that sales outside the normal distribution area might be forthcoming, owing to the improved location of the Montgomery firms.

*To buyers.*—The central location of wholesale food firms would permit buyers to make purchases in less time than presently required. The quality of perishable foods could be maintained at a higher level through improved handling methods and by the increased use of refrigeration.

*To farmers.*—Farmers in the Montgomery area would have a desirable location and good facilities for their wholesale market. The modern sales sheds would allow efficient handling and provide more suitable surroundings for more sales. All of the proposed sites are adjacent to good highways, and farmers should be able to reduce cartage cost for the portion of their volume moving into wholesale channels. A convenient location would reduce travel time and thus permit more productive hours on the farm.

*To market employees.*—Working conditions for the employees handling food would be expected to improve in modern facilities. Since the buildings are designed for the mechanized handling of food, the employees' work should require less physical effort to handle a larger volume of food. Regular hours could be more easily arranged; thus, employees would have a more desirable working day.

*To truckers and railroads.*—Both the trucking firms and the railroads should obtain advantages from the proposed facilities. Improved streets and docks would eliminate unnecessary handling, which affects incoming and outbound vehicles. There would be a reduction in the time truckers spend in the market.

The railroads serving the proposed sites would benefit in two important ways. (1) They would be able to place cars adjacent to wholesale facilities for unloading. (2) The consolidation of wholesale firms in one location would allow the railroads to use their tracks and equipment more efficiently.

*To the local government.*—The construction of new facilities would benefit the local governments in several important ways: (1) The relocation of the food wholesaling firms would allow land in urban renewal areas to be put to uses that would increase tax revenues. (2) The location of food firms in new facilities would make it easier to enforce sanitation and fire regulations. (3) Under private financing the proposed wholesale food facilities could produce tax revenue in excess of $22,000. (4) Indirect tax returns should be possible from the increased volumes expected to move through the proposed wholesale food facilities.

## Summary of Benefits and Savings

Possible savings that firms in the basic food group may derive in new facilities more than compensate for the increase in rentals. Annual savings, using private funds for financing and operation, are estimated at $44,000 (table 17). The total includes estimated savings of $109,000 on handling and interdealer transfer and $45,000 on spoilage, deterioration, breakage, and shrinkage. There would be an increase of $110,000 in rentals.

Assuming Wallace-Cater financing, annual savings would amount to about $86,000 per year. Based on measurable costs, grocery dealers will have higher costs in the proposed facilities than in the present facilities. They will need less space and less labor, but higher rents will offset these savings. However, nonmeasurable benefits, such as ease of expansion, possible future savings in receiving and shipping costs resulting from the pooling of functions between firms, and the assurance of protection by increasingly stringent sanitary regulations, should more than offset the increase.

TABLE 17.—*Summary of reductions* [1] *in estimated costs in present and proposed wholesale food facilities for firms for which space has been provided in the new market*

| Type of wholesaler | Handling and interdealer transfers | Spoilage, deterioration, and shrinkage | Rental cost | | Total | |
|---|---|---|---|---|---|---|
| | | | Private | Wallace-Cater | Private | Wallace-Cater |
| Fresh fruits and vegetables | −$28, 749 | −$8, 912 | $44, 056 | $29, 443 | $6, 395 | −$8, 218 |
| Meat and related products | −73, 304 | −30, 755 | 35, 719 | 20, 247 | −68, 340 | −83, 812 |
| Groceries | −6, 526 | −5, 175 | 29, 811 | 17, 936 | 18, 110 | 6, 235 |
| Total | −108, 579 | −44, 842 | 109, 586 | 67, 626 | −43, 835 | −85, 795 |

[1] Minus sign (−) indicates reduction in costs.

## NEED FOR A FARMERS' MARKET IN MONTGOMERY

Several studies have been made to collect information on the production of fruits and vegetables in areas surrounding Montgomery, the interest of producers and others in an improved farmers' market in Montgomery, and the need for such a market.

Studies were completed in 1963 and 1964 on the volume of fruits and vegetables produced in the three major producing counties of the area—Chilton, Autauga, and Elmore. These studies included enumerations of growers and market leaders on problems and marketing needs.[5] Montgomery was prominently cited by these producers as a desirable location for improved wholesale and retail facilities for farmers' produce.

A direct mail survey of growers in a 12-county area surrounding Montgomery was conducted in March and April, 1965, to find out if growers were interested in renting space in an improved farmers' market in Montgomery. A sample survey form is given in the appendix.

Information was also obtained from professional agricultural workers, shipping point receivers (packing shed operators) actively engaged in marketing services, and major wholesale fruit and vegetable dealers and market managers by personal interview or questionnaire.

### Fruit and Vegetable Crops Produced in the Montgomery Area

Producers in counties near Montgomery are partially dependent upon Montgomery consumers and food distribution facilities to market their produce. Two of the nearby counties, Coosa and Tallapoosa, are rapidly developing a commercial apple industry, but they do not have an organized system for marketing these apples. Grower groups have set a goal of 2,000 acres for the area; they have 500 acres now in production. During the 1964–65 season 12,000 trees were planted.

Counties in the Montgomery area have not fully developed available soil and water resources for fruit and vegetable production. However, successful producer demonstrations indicate an extensive produce industry is economically feasible. Montgomery, the major consuming and distribution center for the area, has a strategic location in relation to the major consuming centers of the Southeastern United States (fig. 8).

Information on the major fruit and vegetable producing counties (fig. 9) and their production of specified crops is given in the following pages.

[5] Reports have been, or will be, prepared for 20 Alabama truck crop counties covered in the 1963–64 survey. County reports are to be supported by market area reports, which will combine data for groups of counties surrounding established marketing facilities. A final publication combining data for Alabama's commercial crop counties will be published by the Cooperative Extension Service, Auburn University, in cooperation with the U.S. Department of Agriculture.

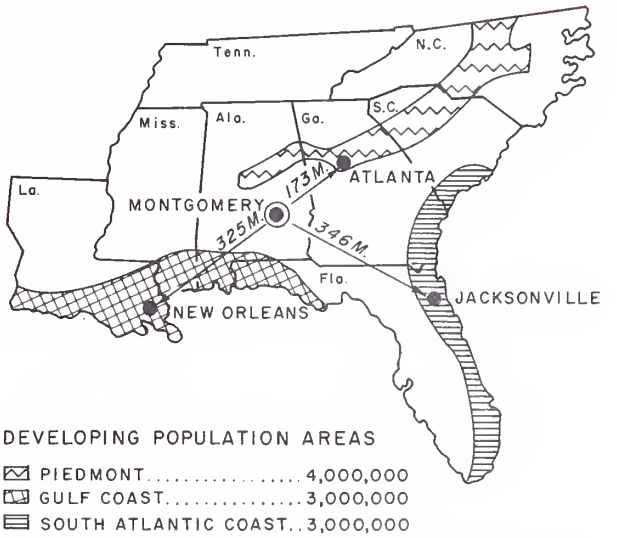


FIGURE 8.—Major consuming centers in the Southeastern United States.

FIGURE 9.—Alabama's commercial crop counties.

### Chilton County

Chilton County, only 40 miles from Montgomery, is Alabama's leading fruit-producing area. It ranks fifth in vegetable production among Alabama counties and also produces commercial quantities of berries, melons, and pecans.

Historically, Montgomery has been an important wholesale and retail sales center for the county's produce farmers. During peak seasons traffic congestion in and around farmers' sales facilities in Montgomery has forced many of these producers to seek more distant markets. Inefficient markets have been a major factor influencing many of Chilton County's fruit and vegetable producers to reduce or discontinue production in recent years.

For Chilton County's fruit and vegetable production, see table 18.

### Autauga County

Montgomery is Autauga County's major market center. The number of growers in Autauga County producing specified crops and their volume in 1962 is shown in table 18.

Other commercial food crops grown in Autauga County and marketed in Montgomery, but not enumerated in the table, include green leafy vegetables, cucumbers, English peas, peanuts (for boiling), and pecans.

### Elmore County

Elmore County's 165 producers marketed fruits and vegetables, valued at $325,000, from approximately 1,500 acres. Ninety-six of the 165 producers sold fresh produce in Montgomery and Birmingham, Ala., and Columbus, Ga. The remaining 69 producers grew cucumbers, which they marketed for pickles through a Montgomery processor. Producers sold approximately 75 percent of their wholesale volume in Montgomery.[6]

Seventeen different vegetable crops were reported sold from Elmore County truck farms. The 10 leading crops were tomatoes, watermelons, field peas, cantaloups, butter beans, corn, sweetpotatoes, okra, squash, and turnip greens.

Elmore County growers cited solutions to their truck crop marketing problems in the following order of importance:

| *Solution* | *Percentage of growers* |
|---|---|
| New sales outlets | 64 |
| Packing and assembly shed | 16 |
| Growers' association | 8 |
| More complete market news | 4 |
| Higher quality produce | 4 |
| Other | 4 |

[6] Production volume and number of producers in Elmore County were derived from a survey and master's thesis by Assistant County Agent Fred H. Lovvorn in 1962.

TABLE 18.—*Number of growers and production of specified crops, Autauga and Chilton Counties of Alabama, 1962*

| Commodity | Number of growers | | Production | | |
|---|---|---|---|---|---|
| | Autauga County | Chilton County | Unit | Autauga County | Chilton County |
| Beans, lima | 13 | 98 | Bushels | 5,320 | 17,330 |
| Beans, snap | 6 | 102 | do | 2,320 | 23,350 |
| Cabbage | 0 | 2 | Pounds | 0 | 64,000 |
| Collards | 0 | 27 | Dozen bunches | 0 | 29,220 |
| Corn | 5 | 155 | Dozen ears | 14,590 | 375,360 |
| Okra | 1 | 64 | Bushels | 80 | 130,870 |
| Peas, English | 0 | 13 | do | 0 | (1) |
| Peas, field | 28 | 182 | Pounds | 967,080 | 1,355,980 |
| Peppers, bell | 0 | 13 | Bushels | 0 | (1) |
| Squash, summer | 3 | 46 | do | 1,910 | 8,370 |
| Sweetpotatoes | 2 | 46 | do | 2,500 | 32,220 |
| Tomatoes | 10 | 329 | do | 2,610 | 168,420 |
| Turnip greens | 0 | 40 | Dozen bunches | 0 | 9,880 |
| Peanuts | 0 | 2 | Bushels | 0 | 33,600 |
| Cantaloups | 11 | 86 | do | 14,440 | 42,290 |
| Peaches | 5 | 460 | do | 15,470 | 1,366,720 |
| Plums | 0 | 10 | 12-quart crate | 0 | 3,520 |
| Watermelons | 36 | 188 | Melons | 1,065,960 | 326,960 |

[1] Not available.

TABLE 19.—*Types of markets used by Chilton County farmers for major fruit and vegetable crops, 1962*

| Commodity | Percentage of total produce marketed | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | Direct to consumer | To retail stores | Farmers' market | Chainstore wholesaler | Processor | Packing shed | Trucker | Other |
| Beans, lima | 22 | 6 | 54 | 4 | | | 13 | 1 |
| Beans, snap | 10 | 8 | 74 | 6 | | | 1 | 1 |
| Collards | | | 27 | 70 | | | | 3 |
| Corn | | | 28 | 67 | | | | 5 |
| Okra | 3 | 7 | 25 | 52 | 13 | | | |
| Peas, field | 6 | 2 | 84 | 8 | | | | |
| Sweetpotatoes | 7 | 4 | 28 | 61 | | | | |
| Squash | 2 | 9 | 75 | 12 | | | | 2 |
| Tomatoes | 12 | 4 | 81 | | | | 2 | 1 |
| Cantaloups | 3 | | 89 | 2 | | | 6 | |
| Peaches | 11 | 6 | 27 | 6 | | 28 | 20 | 2 |
| Watermelons | 4 | 2 | 78 | 1 | | | 15 | |
| Pecans | 20 | 40 | 40 | | | | | |

### *Macon County*

Macon County, with 1,635 small farms, has extensive areas that could be used for growing vegetables. Producers have expressed an interest in expanding vegetable production. Montgomery is the only nearby consuming center, and congestion and inadequacy of its facilities have partially deterred development of vegetable production by Macon County farmers.

Macon County farm agents estimate that 2,000 acres of field peas, 300 acres of cucumbers, and 300 to 500 acres of sweetpotatoes would be grown if convenient markets were available.

### *Montgomery County*

Montgomery County has no large areas suitable for economical vegetable production. Major farm areas consist of heavy clay soils that are difficult to till and that possess other physical characters more adaptable to sod culture than to tillage.

There are only 30 truck crop producers in the county. They produce and market annually through farmer-to-consumer outlets an estimated volume worth $35,000.

Montgomery County has 150 pecan grove operators. The county agent has received repeated requests to initiate a program through which pecan growers can acquire or have access to cold storage facilities for pecans.

### *Other Counties*

Bullock, Pike, Crenshaw, Butler, and Lowndes Counties, all less than 50 miles from Montgomery County, have substantial lands that could be used for fruit and vegetable production. The five counties produce only small quantities of these crops at present; melons and cantaloups are produced for local markets by a few growers.

## Types of Markets in the Montgomery Area

In recent surveys of counties throughout Alabama, growers were asked to record current marketing procedures relative to the types of markets they used. Responses were similar for all counties in the Montgomery area. Growers in Chilton County were considered as representative, and the percentage of specific commodities they sold through each of seven types of markets is shown in table 19.

A number of growers in the Montgomery area expressed an interest in producing fruits and vegetables for processing. Indications of their interest is shown by responses of Autauga and Chilton County farmers (table 20). Surveys in 17 other Alabama counties indicate responses similar to those of Autauga and Chilton County growers.

A report prepared for the city by a private research organization indicates that food processing is the largest single manufacturing industry in Montgomery. Several firms have marketing operations on a national scale. Distribution patterns of the other firms are varied, but showed considerable strength in the Southeastern and Southwestern States. Montgomery is one of the few cities having sales coverage of Deep South and Middle South markets.

## Grower Interest in Sales Space in a Proposed Farmers' Market in Montgomery

There were 115 producers who expressed an interest in space in the proposed farmers' market. Thirty-eight of these producers indicated an in-

TABLE 20.—*Growers interested in producing fruits and vegetables for processing, Autauga and Chilton Counties, 1962*

| Crop | Number of growers | Acres |
|---|---|---|
| Beans, lima | 69 | 187 |
| Beans, snap | 52 | 297 |
| Collards | 2 | 40 |
| Corn | 85 | 930 |
| Cucumbers | 30 | 90 |
| Okra | 172 | 1, 194 |
| Peas, field | 239 | 1, 737 |
| Sweetpotatoes | 6 | 75 |
| Squash, summer | 3 | 45 |
| Tomatoes | 285 | 928 |
| Turnip greens | 30 | 70 |
| Other greens | 1 | 50 |
| Blackberries | 22 | 80 |
| Cantaloups | 10 | 70 |
| Peaches | 229 | 3, 593 |
| Strawberries | 30 | 88 |
| Watermelons | 30 | 290 |
| Other fruits | 2 | 40 |
| Vegetables, unspecified | 24 | 645 |
| Fruits and vegetables, unspecified | 24 | 950 |
| Total | 1, 345 | 11, 399 |

terest in renting a stall on an annual rental basis. The 115 producers planted 6,819 acres of fruits and vegetables in 1965. Eighty-three producers said they would increase their production if a new farmers' market were built. See table 21 for details.

## Summary and Conclusions

Producers of the Montgomery area are encountering congested conditions in their effort to market through existing facilities. Present markets are a traffic hazard in downtown areas during peak sales periods. The crowded, inefficient condition of the markets discourages producers and buyers.

In recent years grower organizations have repeatedly petitioned legislative leaders and others for action to correct the existing situation in Montgomery.

Recent producer surveys indicate that a more efficient market with a convenient location in the Montgomery area would attract growers who are not selling in the area at this time. It would also supply an economic base for present growers to increase volume of production.

Existing evidence also indicates substantial interest in producing crops for processing. This segment of Alabama food crop production and marketing has not been adequately explored and possibly offers encouraging economic opportunities.

While many food wholesalers have already met their facility requirements, there are enough wholesalers (basic and allied) along with the farmers to make possible a small market if it is carefully planned, financed, and managed.

TABLE 21.—*Number of growers interested in a farmers' market in Montgomery, degree of interest, and their current acreage in fruits, vegetables, and melons, April 1965*

| County [1] | Number of growers | | | | | | Current acreage | | |
|---|---|---|---|---|---|---|---|---|---|
| | Interested in new market | Degree of interest [2] | | | | Who would increase production [3] | Fruits [4] | Vegetables | Melons |
| | | a | b | c | d | | | | |
| Montgomery | 20 | 9 | 2 | 1 | 6 | 12 | 11 | 171 | 59 |
| Elmore | 22 | 3 | 3 | 0 | 17 | 20 | 237 | 137 | 105 |
| Chilton | 33 | 4 | 4 | 12 | 23 | 32 | 4, 137 | 597 | 339 |
| Tallapoosa | 4 | 2 | 0 | 1 | 1 | 4 | 52 | 0 | 2 |
| Butler | 7 | 1 | 1 | 4 | 4 | 9 | 13 | 56 | 63 |
| Macon | 4 | 0 | 0 | 1 | 3 | 3 | 13 | 12 | 12 |
| Bullock | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Lowndes | 2 | 0 | 1 | 0 | 1 | 3 | 30 | 5 | 6 |
| Coosa | 4 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Autauga | 18 | 5 | 0 | 4 | 9 | 0 | 53 | 249 | 460 |
| Total [5] | 115 | 26 | 12 | 23 | 64 | 83 | 4, 546 | 1, 227 | 1, 046 |

[1] Producers in Pike and Crenshaw Counties did not respond to questionnaire.
[2] See page 31 for explanation of degree of interest.
[3] These growers said they would increase production if a new market were built.
[4] Includes 1 acre of berries in Montgomery County, 49 acres in Chilton County, and 8 acres in Butler County.
[5] The number of growers interested in a new market and the total number of growers under degree of interest do not correspond because more than one column was checked by the same grower.

# APPENDIX

Typical questionnaire sent to growers in the Montgomery area:

I. Interest (mark one)

I am _____ or am not _____ interested in leasing sales space on a new Montgomery area farmers' market. (If you indicate not interested—ignore other questions, sign and return.)

II. Degree of interest (complete only one of (a) through (d)).

(a) I am interested in rental of a 10 ft. by 33 ft. (330 sq. ft.) space at an annual rental fee of $200. Yes _____ No _____.

(b) I am interested in a smaller than 10 ft. by 33 ft. space on an annual rental fee basis of not over $100. Yes _____ No _____.

(c) I am interested in space for only a limited sales season, approximately 6 months, at less than $100 season's rental fee. Yes _____ No _____.

(d) I am interested in marketing produce on an improved Montgomery Farmers' Wholesale Market but only on a day-to-day truck parking fee basis. Yes _____ No _____.

III. Produce marketed (mark items produced and acreage of production):

| *Products* | *Acres* |
|---|---|
| Tree fruits | _____ |
| Vegetables | _____ |
| Berries | _____ |
| Watermelons | _____ |
| Cantaloups | _____ |

Other food products list:

_____

_____

_____

_____

IV. Influence of an improved Montgomery area farmers' market on production program (mark one).

An improved farmers' market will _____ or will not_____ enable me to increase food crop production.

Signed _____

Address _____

_____



U.S. GOVERNMENT PRINTING OFFICE: 1966 O—209–586